

EXHIBIT 10

EXHIBIT 10**Applications of U.S. Patent No. 9,697,038 to V-Migrate and V-Maestro (collectively, “Accused Products”)**

Plaintiff VirtaMove Corp. (“VirtaMove”) infringes claims 1–20 of the ’038 Patent (the “Asserted Claims”) under 35 U.S.C. § 271(a), (b), and (c). As set forth below, VirtaMove’s infringement is both direct and indirect.¹

VirtaMove has directly infringed the ’038 Patent at least by making, using, offering to sell, selling, and/or importing into the United States its V-Migrate and V-Maestro (collectively, “Accused Products”) on or after the issuance date of the patent.

VirtaMove induces infringement under 35 U.S.C. § 271(b) by providing the Accused Products, which are sold and specifically configured to infringe the Asserted Claims, to VirtaMove customers and partners in the United States. VirtaMove actively instructs and encourages its customers and partners on how to use the Accused Products, including through product manuals, advertising, and instructional videos. When used as instructed, VirtaMove’s customers and partners use these products to practice the systems of the ’038 Patent and directly infringe the Asserted Claims. On information and belief, VirtaMove specifically intends that its actions will result in infringement of the asserted claims of the ’038 Patent or subjectively believes that its actions will result in infringement of the Asserted Claims, but took deliberate actions to avoid learning of the facts.

As shown below, VirtaMove also contributes to infringement under 35 U.S.C. § 271(c) by providing the Accused Products, which embodies a material part of the claimed invention of the ’038 Patent, is known by VirtaMove to be specially made or adapted for use in an infringing manner, and is not with substantial non-infringing uses.

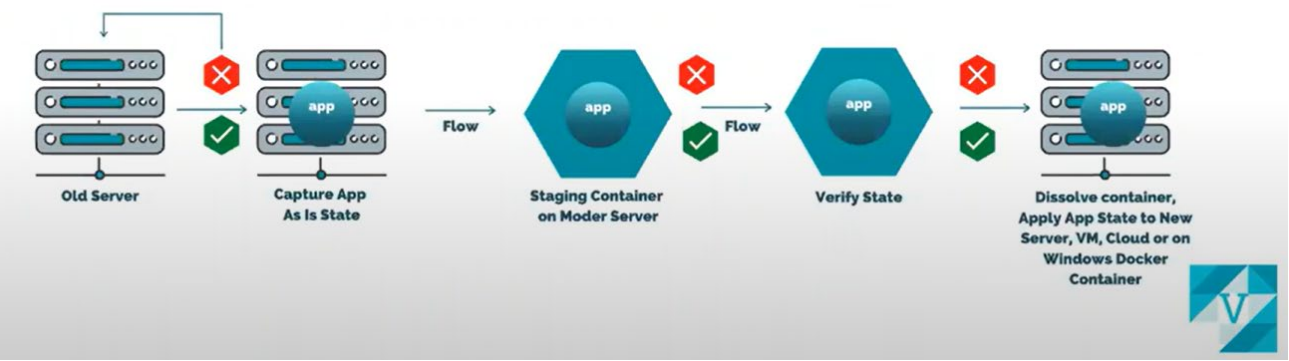
The Accused Products are specially designed to infringe the ’038 Patent and the accused components have no substantial non-infringing uses.

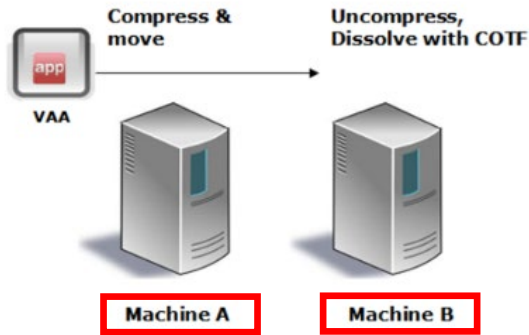
Claim	US 9,697,038 Claim Term	Analysis
1pre	A system, comprising:	To the extent that the preamble is limiting, the Accused Products comprise “[a] system” for updating isolated environments (containers) as applications request new resources.

¹ Public information is limited regarding the Accused Products, and accordingly, IBM reserves the right to amend its infringement contentions based on productions and source code made available during discovery.

Claim	US 9,697,038 Claim Term	Analysis
		<p>For example, V-Migrate automates migration and “move[s] the application via smart, encrypted communication to a virtual container on the target system. The container encapsulates the virtualized application and its dependencies and separates it from the underlying OS.”</p> <div data-bbox="657 407 1955 1284"> <h2 data-bbox="730 427 1906 492">Using VirtaMove to gain Migration Intelligence</h2> <p data-bbox="1192 521 1440 540">by VALERIE YATES May 01, 2018</p> <p data-bbox="709 610 1890 670">Migration Intelligence is key to solving the problem of moving workloads in scale. What do we mean by Migration Intelligence? At the simplest level, MI means: <i>Be smart about what you move and how you move it.</i></p> <p data-bbox="709 708 1925 837">The first step in MI is to use smart, automated application discovery and monitoring on servers to dynamically discover application usage, server and workload capacity requirements, application dependencies, and migration readiness. Intelligent monitoring tells you which applications are still used, establishes the priorities for migration, reveals application and storage clutter, and helps you plan and size target server requirements.</p> <p data-bbox="709 875 1885 935">Once an application is "green-lighted" for migration (all application dependencies are discovered), you can move on to the automated migration step using V-Migrate.</p> <p data-bbox="709 967 1925 1097">So, what do we mean by automated migration? We mean move the application via smart, encrypted communication to a virtual container on the target system. The container encapsulates the virtualized application and its dependencies and separates it from the underlying OS. The container gives you a secure environment on the target server to do final acceptance testing and cut-over from the production server.</p> <p data-bbox="709 1135 1425 1159">Read the Blog: The Next Step in Moving Legacy Workloads to the Cloud in Scale"</p> <p data-bbox="709 1240 831 1265">Submitted by</p> </div> <p data-bbox="657 1321 1388 1354">(https://virtamove.com/blog/gain-migration-intelligence/)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>Additional evidence showing VirtaMove's infringement is found in at least the following documents:</p>  <p>(https://virtamove.com/blog/not-just-app-modernization/)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p style="text-align: center;">Legacy Windows Application Migration Workflow</p> <p style="text-align: center;">Capture. Flow. Transform. Apply</p>  <p>(https://www.youtube.com/watch?v=hDb541Ax6xw)</p>
1a	one or more central processing units; and	<p>The Accused Products comprise “one or more central processing units.”</p> <p>For example, the Accused Products migrate applications “from the source machine to the destination machine[,]” where the source and destination machines comprise “central processing units” (“CPUs”)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>Step 2: Move the Container</p> <p>You must compress a container (.cap) to <u>move it from the source machine to the destination machine.</u> Then, you must uncompress the .cap file on the destination machine to begin using the container. One of the reasons for compressing the container is to preserve the short file names of the files in the container as they exist on the source machine.</p> <p>See Moving Containers.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/313688121/Running+Containers#Step-2:-Move-the-Container)</p> <p>Dissolve Example 2</p>  <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311460124/About+Dissolve)</p>

The following table lists the elements in the Source Details window.

Item	Description
System Information card	Displays information about the system of the source: <ul style="list-style-type: none"> • IP Address • OS • Any group assigned to the source • <u>CPU</u> • Destination. You can assign a destination by clicking Assign. • Memory


(<https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314671475/Viewing+Source+Details>)


The following table lists the elements in the Destination Details window.

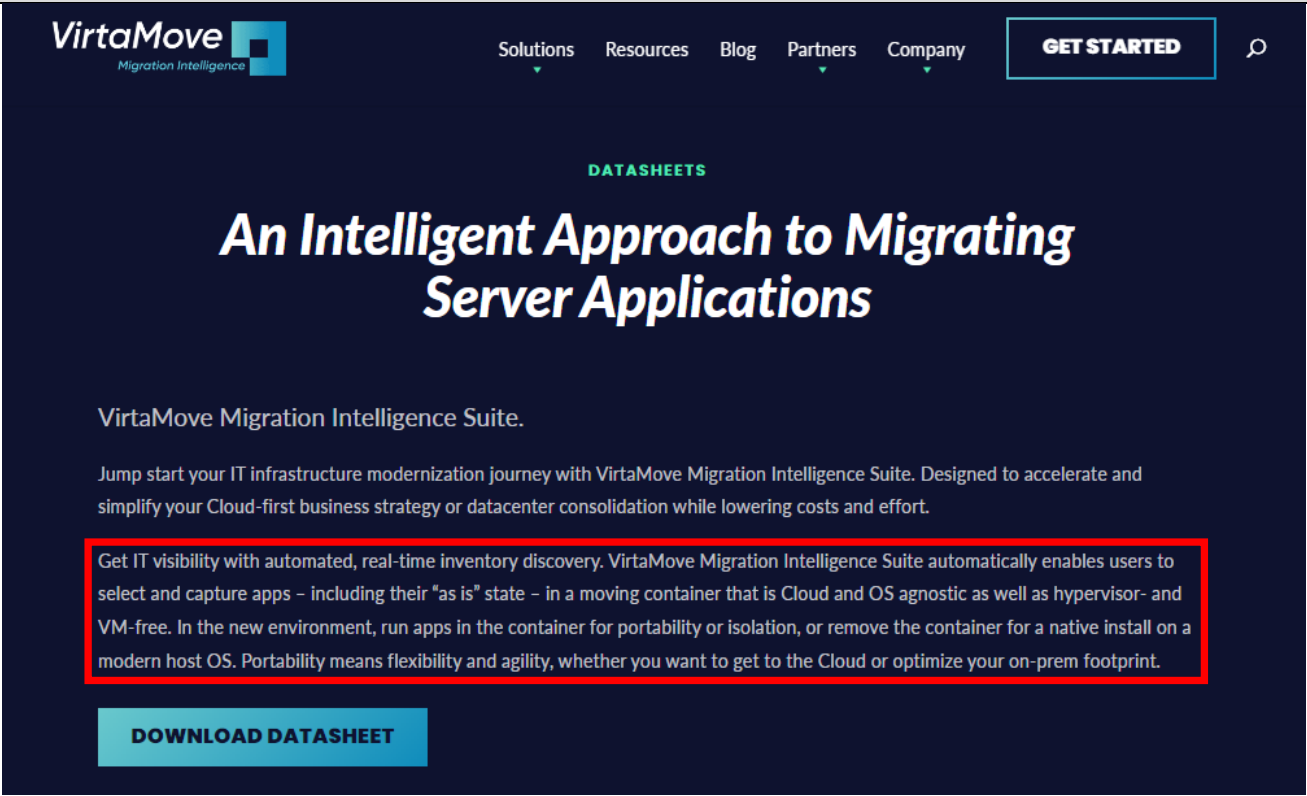
Item	Description
Destination System Information card	Displays information about the system of the destination: <ul style="list-style-type: none"> • IP Address • OS • Any group assigned to the source • <u>CPU</u> • Source. You can assign a destination to a source by clicking Assign. • Memory

Claim	US 9,697,038 Claim Term	Analysis
		https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314868022/Viewing+Destination+Details
1b	one or more isolated environments including one or more applications;	The Accused Products comprise “one or more isolated environments including one or more applications.” For example, the Accused Products “isolate applications.”

Claim	US 9,697,038 Claim Term	Analysis
		<div data-bbox="865 302 1747 427"> <h2>VirtaMove: It's Not Just Application Modernization</h2> </div> <div data-bbox="1176 459 1436 479"> <p>by NIGEL STOKES August 09, 2017</p> </div> <div data-bbox="711 548 1871 678"> <p>For some time now we've been blogging about the advantages of automated Application Modernization using our unique container-based technology for Microsoft Server environments. However, customers have discovered many advantages of VirtaMove containers that extend beyond application modernization. For years, customers have been taking advantage of VirtaMove containers to solve a range of business challenges.</p> </div> <div data-bbox="707 701 1018 725"> <h3>1. ISOLATE APPLICATIONS</h3> </div> <div data-bbox="707 740 1902 977"> <p>In many industries, like Insurance, Healthcare or Pharmaceuticals and even in Banking, customers must verify compliance of business applications to rigorous, auditable standards (for example HIPAA is a compliance standard in regulated Healthcare-related businesses). Once an application is certified, making changes requires a time consuming and expensive recertification process. To avoid recertification, customers containerize legacy applications and run them in isolation on newer OS and server environments. Containerization allows customers to run several close variations of applications, each dependent on unique but similar software stacks on the same server. The isolation provided by containerization avoids conflicts between different stacks (for example, database and driver variations) and eliminates the need to manage multiple servers and license multiple OS platforms for each application.</p> </div> <div data-bbox="707 1000 1415 1024"> <h3>2. CREATE EXACT APPLICATION IMAGES FOR DEVELOPMENT</h3> </div> <div data-bbox="707 1039 1896 1203"> <p>Software development is a demanding business. Under pressure to meet deadlines, software developers may well forget about the detailed installation scripts and configuration data required to create identical cloud or test copies of an application. However, if applications are containerized, it's easy to create exact images on newer OSs such as Windows Server 2008 R2 or WS2012 or WS2016. This eliminates the need to worry about recreating an installation process or scripts. Additionally, applications that are containerized with VirtaMove on WS2008 can run seamlessly on WS2012 or WS2016.</p> </div> <div data-bbox="707 1235 1898 1331"> <p>Containerization accelerates the development and testing of new software by making it easy to create identical copies of the software on both datacentre and cloud servers. It lets the developer focus on building software that solves business problems rather than worrying about the details of configuration.</p> </div>

Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="657 272 1388 305">(https://virtamove.com/blog/not-just-app-modernization/)</p> <p data-bbox="657 337 1965 410">Indeed, the Accused Products “create a migration container and populate it with the application and its dependencies.”</p> <h2 data-bbox="709 459 1480 521">Step 2: Prepopulate a Container</h2> <div data-bbox="709 573 1251 643">  Owned by Thomas Farley (Deactivated) *** Mar 29, 2022 • 1 min read </div> <p data-bbox="709 699 1896 954">Once the pre-migration Audit is complete, you can <u>create a migration container and populate it with the application and its dependencies</u>. V-Maestro will copy all dependencies into the container, such as user and group accounts and COM objects. Once this step is complete, V-Maestro will dock the container, which registers the container onto the operating system of the destination.</p> <p data-bbox="657 1011 1997 1044">(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314802710/Step+2+Prepopulate+a+Container)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="667 272 1213 313">The Application Migration Process</p> <div data-bbox="667 345 1029 394"> Owned by Thomas Farley (Deactivated) *** Last updated: Mar 25, 2022 • 2 min read</div> <p data-bbox="667 427 1157 451">Migrating an application involves the following steps:</p> <ol data-bbox="667 475 1942 881" style="list-style-type: none"><li data-bbox="667 475 1942 540">1. Meet requirements for your environment as well as source and destination machines. See https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310706978 Can't find link .<li data-bbox="667 540 1915 581">2. Double-click the Administrative Console shortcut icon on your desktop to start Administrative Console.<li data-bbox="667 581 1281 621">3. Create a virtual container and connect it to the source machine.<li data-bbox="667 621 1915 662">4. Pre-populate the virtual container with applications, services, accounts, components, and files selected from the source machine.<li data-bbox="667 662 1942 735">5. Run your virtualized application on the destination machine and exercise the application. See Running and Exercising Your Application .<li data-bbox="667 735 1942 881">6. Run VirtaMove Dissolve if you want to remove the migration container from the application and transfer the application to the underlying operating system on the destination machine so that the application will behave as if natively installed. Note that this process cannot be reversed. See Dissolving a Virtual Container . You may wish to keep the application running in the migration container, as required. <p data-bbox="667 963 2037 995">https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310739347/The+Application+Migration+Process</p> <p data-bbox="667 1027 1948 1060">Additional evidence showing VirtaMove’s infringement is found in at least the following documents:</p>

Claim	US 9,697,038 Claim Term	Analysis
		<div data-bbox="657 264 1955 1055"><p>The screenshot shows the VirtaMove website with a dark blue background. At the top, there is a navigation bar with links for Solutions, Resources, Blog, Partners, and Company, each with a dropdown arrow. A 'GET STARTED' button is on the right. Below the navigation bar, the word 'DATASHEETS' is displayed in green. The main heading is 'An Intelligent Approach to Migrating Server Applications' in large white text. Below this, the text reads 'VirtaMove Migration Intelligence Suite.' followed by a paragraph: 'Jump start your IT infrastructure modernization journey with VirtaMove Migration Intelligence Suite. Designed to accelerate and simplify your Cloud-first business strategy or datacenter consolidation while lowering costs and effort.' A red rectangular box highlights a paragraph of text: 'Get IT visibility with automated, real-time inventory discovery. VirtaMove Migration Intelligence Suite automatically enables users to select and capture apps – including their "as is" state – in a moving container that is Cloud and OS agnostic as well as hypervisor- and VM-free. In the new environment, run apps in the container for portability or isolation, or remove the container for a native install on a modern host OS. Portability means flexibility and agility, whether you want to get to the Cloud or optimize your on-prem footprint.' Below this highlighted text is a blue button that says 'DOWNLOAD DATASHEET'.</p></div> <p data-bbox="657 1089 1824 1125">(https://virtamove.com/resources/an-intelligent-approach-to-migrating-server-applications/)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>3. CONTAINERIZE AND ISOLATE APPLICATIONS</p> <p><i>The problem:</i> In regulated businesses, customers need to modernize certified applications that are running on legacy operating systems so that they can enable these apps on a supported OS. In many industries, like Insurance, Healthcare, Pharmaceuticals, and Banking, customers must verify compliance of business applications to rigorous, auditable standards (HIPAA and HITECH, for example, are compliance standards in regulated Healthcare-related businesses). Once an application is certified, making changes requires a time consuming and expensive re-certification process.</p> <p><i>The VirtaMove solution:</i> Avoid the pain of re-certification by using VirtaMove to containerize legacy applications and run them in isolation on modern OS and server environments.</p> <p>Containerization allows customers to run several close variations of applications, each dependent on unique but similar software stacks on the same server. The isolation provided by VirtaMove containers avoids conflicts between different stacks (for example, database and driver variations) and eliminates the need to manage multiple servers and license multiple OS platforms for each application. In addition, security and performance are improved by virtue of running on a modern server platform.</p> <p>(https://virtamove.com/blog/q-and-a/)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="688 289 1734 350"><i>Protect your applications by modernizing</i></p> <p data-bbox="688 380 1848 440">All the monitoring in the world doesn't eliminate the work involved in upgrading application stacks to new operating systems and software versions to improve security and reduce exposure to cyber warfare.</p> <p data-bbox="688 475 1205 500">Several options are available when it comes to upgrading:</p> <p data-bbox="688 527 951 548">1. REDEVELOP AN APP</p> <p data-bbox="699 566 1923 626">□ You can incur the cost of redeveloping an application on a new OS. However, custom remediation costs can be substantial (more than six figures) and take months of effort and disruption.</p> <p data-bbox="688 678 1108 699">2. CHOOSE AN ISV UPGRADE PATH</p> <p data-bbox="699 717 1875 777">□ If an ISV is involved, you might choose their upgrade path, along with the licensing and migration costs and delays for that single component of the software stack.</p> <p data-bbox="688 829 1207 850">3. UPGRADE A SOFTWARE STACK BY HAND</p> <p data-bbox="699 868 1913 1003">□ You might choose to upgrade a software stack by hand. This involves knowing what you still need, installing new versions of all the software components on the new server infrastructure, developing a data and application migration plan for each component, and developing a test plan to verify the migration. You will then need to remediate and rework any failed components. These steps can take weeks of planning, execution, and verification.</p> <p data-bbox="688 1055 1190 1076">4. USE AN AUTOMATED MIGRATION TOOL</p> <p data-bbox="699 1094 1913 1190">□ This option involves using an automated migration tool to isolate all the application stack dependencies from the underlying OS. You then move the application to the new server and OS infrastructure (upgrading database components on the fly if required). Intelligent automation then places the software stack in the right place on the new OS.</p> <p data-bbox="688 1250 1566 1274">Automated migration can take just a few hours and not uncommonly saves many weeks of labour.</p> <p data-bbox="657 1331 1299 1362">(https://virtamove.com/blog/cyber-warfare-again/)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p><i>The VirtaMove solution:</i> Avoid the pain of re-certification by using VirtaMove to containerize legacy applications and run them in isolation on modern OS and server environments.</p> <p>Containerization allows customers to run several close variations of applications, each dependent on unique but similar software stacks on the same server. The isolation provided by VirtaMove containers avoids conflicts between different stacks (for example, database and driver variations) and eliminates the need to manage multiple servers and license multiple OS platforms for each application. In addition, security and performance are improved by virtue of running on a modern server platform.</p> <p>(https://virtamove.com/blog/q-and-a/)</p>
1c	wherein the one or more central processing units and the one or more isolated environments are configured to interact with each other;	<p>The Accused Products comprise a system, “wherein the one or more central processing units and the one or more isolated environments are configured to interact with each other.”</p> <p>For example, using VirtaMove’s automated migration tool “involves using an <i>automated migration tool to isolate all the application stack dependencies from the underlying OS. You then move the application to the new server and OS infrastructure (upgrading database components on the fly if required).</i>² Intelligent automation then places the software stack in the right place on the new OS.” This migration tool inherently establishes a systematic and configured interaction between the central processing units and newly created isolated environments by isolating application dependencies, transferring them to a new infrastructure, and intelligently integrating the software stack within the new operating system, thereby necessitating and facilitating communication and operational synchronization between the CPUs and the applications within their isolated environments.</p>

² All emphasis added unless otherwise noted.

Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="688 289 1734 350"><i>Protect your applications by modernizing</i></p> <p data-bbox="688 378 1848 440">All the monitoring in the world doesn't eliminate the work involved in upgrading application stacks to new operating systems and software versions to improve security and reduce exposure to cyber warfare.</p> <p data-bbox="688 475 1205 500">Several options are available when it comes to upgrading:</p> <p data-bbox="688 527 951 548">1. REDEVELOP AN APP</p> <p data-bbox="699 565 1923 626">□ You can incur the cost of redeveloping an application on a new OS. However, custom remediation costs can be substantial (more than six figures) and take months of effort and disruption.</p> <p data-bbox="688 678 1108 699">2. CHOOSE AN ISV UPGRADE PATH</p> <p data-bbox="699 716 1875 777">□ If an ISV is involved, you might choose their upgrade path, along with the licensing and migration costs and delays for that single component of the software stack.</p> <p data-bbox="688 829 1207 850">3. UPGRADE A SOFTWARE STACK BY HAND</p> <p data-bbox="699 867 1913 1003">□ You might choose to upgrade a software stack by hand. This involves knowing what you still need, installing new versions of all the software components on the new server infrastructure, developing a data and application migration plan for each component, and developing a test plan to verify the migration. You will then need to remediate and rework any failed components. These steps can take weeks of planning, execution, and verification.</p> <p data-bbox="688 1055 1190 1076">4. USE AN AUTOMATED MIGRATION TOOL</p> <p data-bbox="699 1092 1913 1190">□ This option involves using an automated migration tool to isolate all the application stack dependencies from the underlying OS. You then move the application to the new server and OS infrastructure (upgrading database components on the fly if required). Intelligent automation then places the software stack in the right place on the new OS.</p> <p data-bbox="688 1247 1566 1271">Automated migration can take just a few hours and not uncommonly saves many weeks of labour.</p> <p data-bbox="657 1328 1297 1365">(https://virtamove.com/blog/cyber-warfare-again/)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>Moreover, as another example, after isolating legacy apps and dependencies from the underlying OS and moving apps to a new environment, VirtaMove's Migration Intelligence allows users to "perform a <i>vulnerability analysis and remediate or enhance the apps</i> as needed." This process not only transfers the applications into newly-created, isolated operational spaces but also involves subsequent steps that necessitate further CPU-environment interaction, particularly during the vulnerability analysis and remediation phases. These steps require the CPUs to process and execute tasks specific to the isolated environments, ensuring their security and functionality within the new system.</p> <div data-bbox="659 553 1955 1268"> <h2 data-bbox="674 570 1310 634"><i>How VirtaMove can help</i></h2> <div data-bbox="674 691 1940 846" style="border: 2px solid red; padding: 10px;"> <p data-bbox="674 724 1919 821">Use VirtaMove's automated migration tool to isolate legacy apps and dependencies from the underlying OS. Then, move your legacy apps to a new server and OS (upgrading web server and database components on the fly as required). After the move, you can perform a vulnerability analysis and remediate or enhance the apps as needed.</p> </div> <p data-bbox="674 919 1919 1016">Our customers report to us that it's important for them to modernize legacy applications and move them so that they can run on modern, secure servers. Commonly, they report quarterly progress and status of these efforts to the organization's CIO or CTO, and all the way to the Board of Directors.</p> <p data-bbox="674 1114 1902 1211">Close the door on malware and ransomware. If you need help to upgrade your legacy applications, don't hesitate to give us a call. We modernize apps and move them to new, secure Windows Server and Linux operating systems every day. We'd be pleased to share what we know.</p> </div> <p data-bbox="659 1300 1541 1341">(https://virtamove.com/blog/source-code-leaks-are-bad-for-business/)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<div data-bbox="678 280 1938 565" style="border: 2px solid red; padding: 10px;"> <p>Migration Intelligence can help</p> <p>Use an automated migration tool to isolate legacy apps and dependencies from the underlying OS. Then, move your legacy apps to a new server and OS (upgrading web server and database components on the fly as required). After the move, you can perform a vulnerability analysis and remediate or enhance the apps as needed.</p> <p>You don't need install scripts or source code for your legacy apps. Automated migration takes care of the move and saves months of effort usually needed to upgrade apps.</p> </div> <p>Move beyond the security breach hype-cycle</p> <p>Cyber threat detection on modern systems offers few advantages. It's time to close the barn door on legacy systems and move apps to newer, secure servers.</p> <p>When breaches happen, organizations that have historically done nothing about fixing known exposures of legacy systems may face serious legal claims from customers, shareholders, and governments. People are demanding that companies be held responsible for securing the large database of personal data they collect and maintain.</p> <p>If you're tired of the security breach hype-cycle and need help upgrading your Microsoft Server applications, don't hesitate to give us a call. We modernize apps and move them to new, secure Windows operating systems every day. We'd be pleased to share what we know.</p> <p>(https://virtamove.com/blog/security-breach-hype-cycle/)</p> <p>VirtaMove's "[c]ontainerization allows customers to run several close variations of apps, each dependent on unique but similar software stacks on the same server," indicating interaction between the central processing unit and the isolated environments.</p>

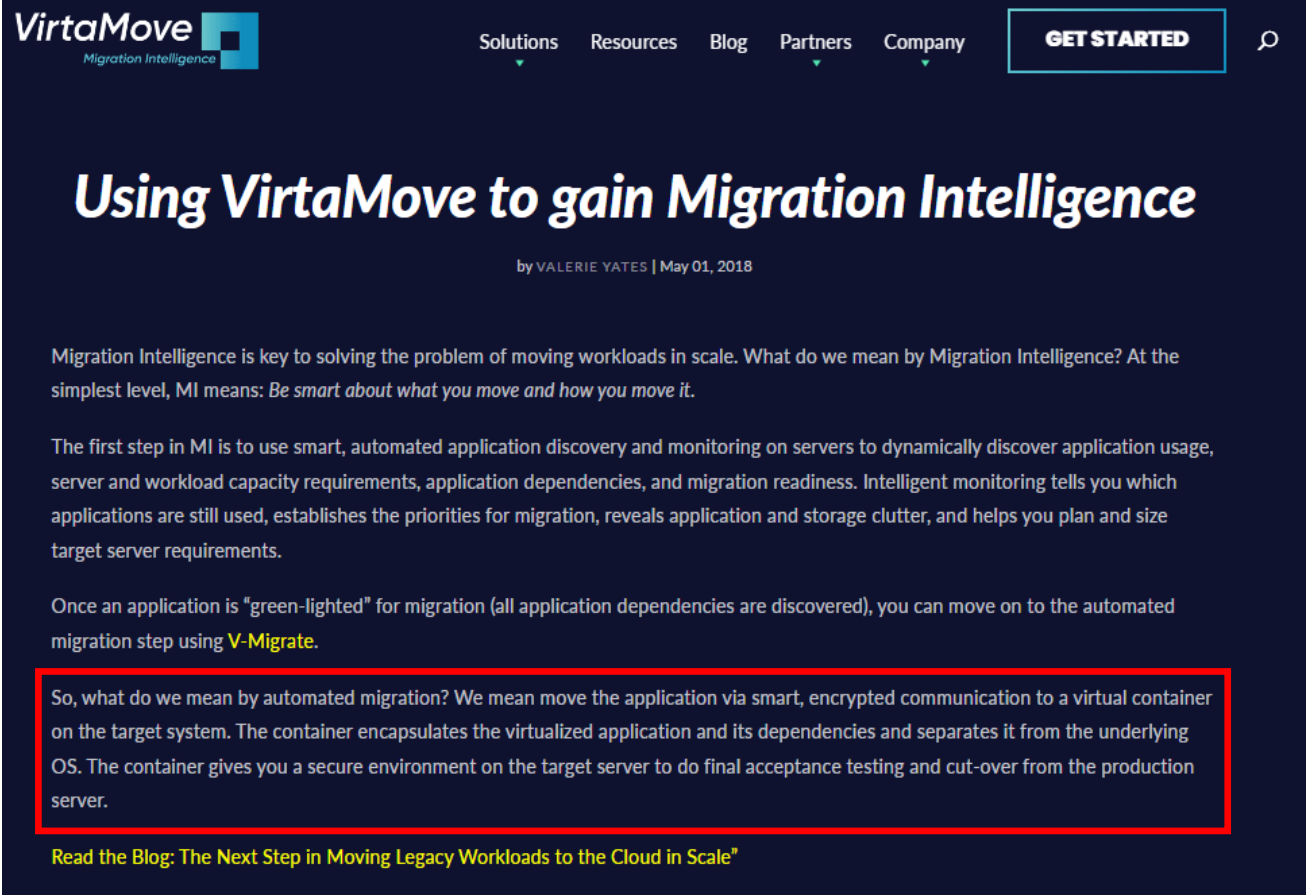
Claim	US 9,697,038 Claim Term	Analysis
		<div data-bbox="657 264 1955 1154"> <h2 data-bbox="835 293 1780 423">Using VirtaMove to Solve Datacenter Management Problems</h2> <p data-bbox="1182 456 1430 475">by VALERIE YATES May 01, 2018</p> <p data-bbox="688 548 1864 610">For years, customers have been taking advantage of VirtaMove containers to solve a range of business challenges in the datacenter management sphere.</p> <div data-bbox="688 626 1913 816"> <h3 data-bbox="688 638 999 657">1. ISOLATE APPLICATIONS</h3> <p data-bbox="688 678 1902 812">In industries like Insurance, Healthcare, Pharma, and Banking, customers must verify compliance to rigorous, auditable standards. Once an app is certified, making changes requires a time consuming and expensive recertification process. To avoid recertification, customers containerize legacy apps and run them in isolation on new OS and servers. Containerization allows customers to run several close variations of apps, each dependent on unique but similar software stacks on the same server.</p> </div> <h3 data-bbox="688 841 1413 860">2. CREATE EXACT APPLICATION IMAGES FOR DEVELOPMENT</h3> <p data-bbox="688 881 1902 976">If apps are containerized, it's easy to create exact images on new OSs such as Windows Server WS2012, WS2016, or WS2019. This eliminates the need to worry about recreating an installation process. Containerization accelerates the development and testing of new software by making it easy to create identical copies of the software on both datacenter and cloud servers.</p> <h3 data-bbox="688 1003 1465 1023">3. STORE MASTER COPIES OF APPLICATIONS FOR DISTRIBUTION</h3> <p data-bbox="688 1044 1892 1138">Once apps are containerized using VirtaMove, backup copies of the containerized apps can be stored for recovery, packaging, or distribution purposes. The master copy of an app stored in a container can be used to create a fresh, decluttered installation of an app, free of malware or other exposures.</p> </div> <p data-bbox="657 1162 1549 1192">(https://virtamove.com/blog/solve-datacenter-management-problems/)</p> <p data-bbox="657 1227 1856 1256">To further illustrate the interaction between CPUs and isolated environments (i.e., containers):</p>


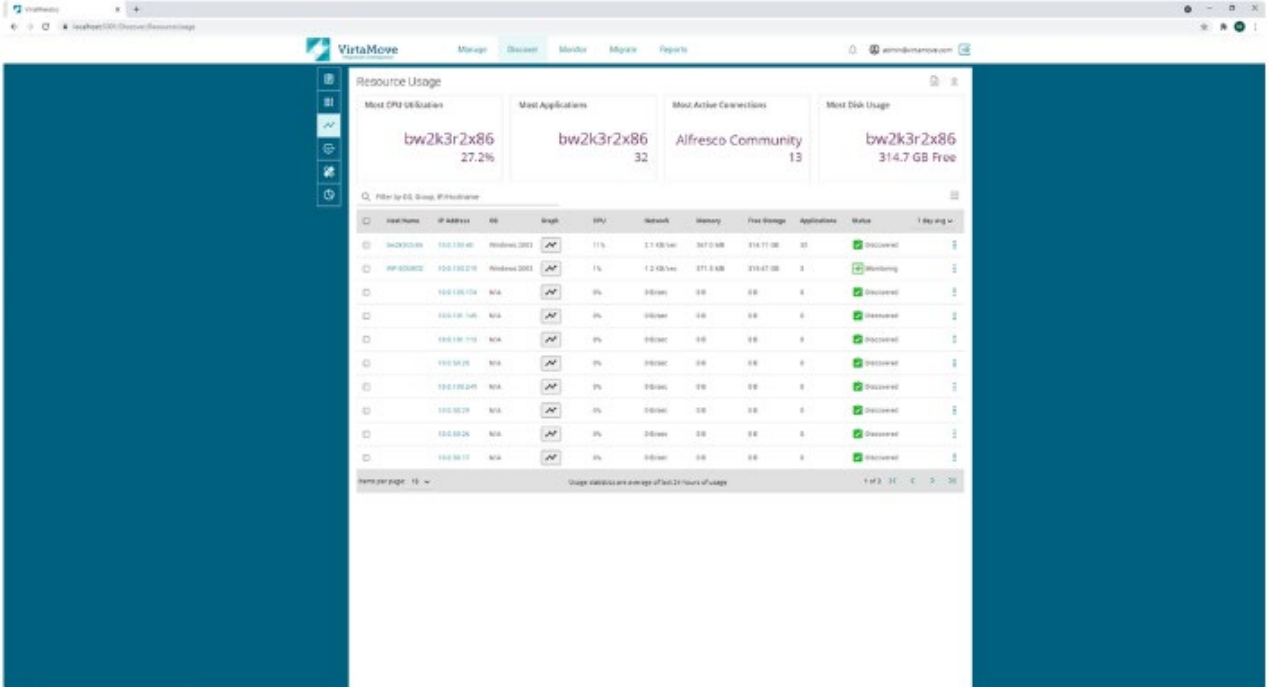
Claim	US 9,697,038 Claim Term	Analysis
		<div data-bbox="661 272 1932 365"> <h2>5 Stages of the Migration Journey</h2> </div> <div data-bbox="661 373 1932 982"> <p style="text-align: center;"><u>Five Stages of the Migration Journey</u></p> <p>The diagram illustrates the migration process across five stages:</p> <ul style="list-style-type: none"> Stage 1: Production App on WS2003/2008 - Shows an 'App' box, 'State Data' box, and 'OS Config' box. Stage 2: Copy out App to WS2012/2016 Moving Container - Shows a 'Moving Container' box containing 'App', 'State Data', and 'OS Config'. Stage 3: Re-Install App on Modern Server - Shows an 'App' box, 'State Data' box, and 'Modern OS Config' box. Optional Stage 4: Upgrade App on Modern Server - Shows an 'Upgraded App' box, 'Upgraded State' box, and 'Upgraded Config' box. Optional Stage 5: Install App into Windows Container - Shows a 'Windows Container' box containing 'Host OS/ Hypervisor', 'Upgraded App', 'Upgraded State', and 'Core OS'. <p>Arrows indicate the flow of data and components between these stages. The 'VirtaMove' logo is visible in the bottom right corner of the diagram.</p> </div> <p>(https://www.youtube.com/watch?v=lhVF9-wgd2M&t=1639s)</p>

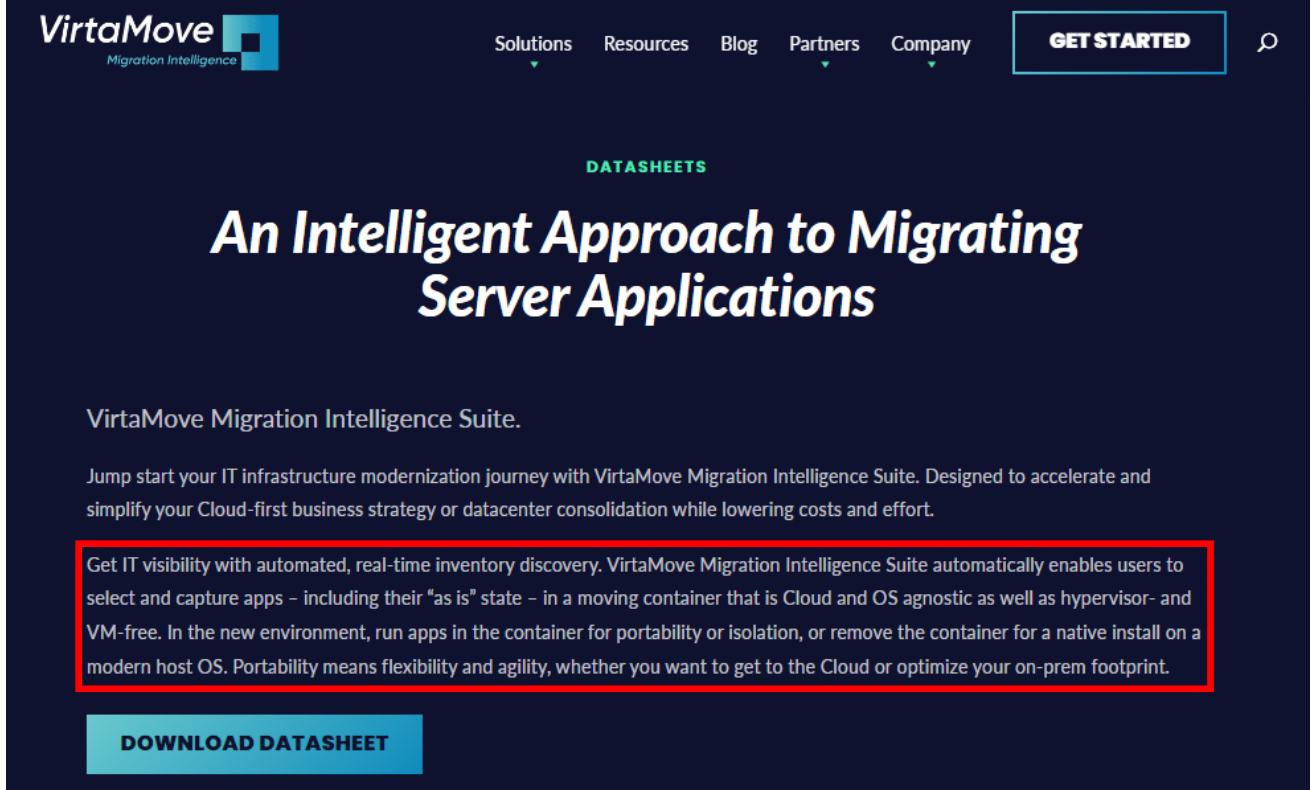
Claim	US 9,697,038 Claim Term	Analysis
		<div><h2>Legacy Windows Application Migration Workflow</h2><p>Capture. Flow. Transform. Apply</p><pre>graph LR; OS[Old Server] -- "X ✓" --> CAS[Capture App As Is State]; CAS -- "Flow" --> SSC[Staging Container on Moder Server]; SSC -- "Flow" --> VS[Verify State]; VS -- "X ✓" --> DCA[Dissolve container, Apply App State to New Server, VM, Cloud or on Windows Docker Container];</pre></div>

Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="667 272 1346 305">https://www.youtube.com/watch?v=hDb541Ax6xw</p> <h2 data-bbox="695 326 1402 386">About Migrating Applications</h2> <div data-bbox="699 440 764 505">  </div> <p data-bbox="783 440 1230 505">Owned by Thomas Farley (Deactivated) *** Last updated: Mar 25, 2022 • 2 min read</p> <p data-bbox="695 561 1913 813">VirtaMove Application Migration is an intelligent discovery tool that migrates an application and its dependencies from a tethered source machine to a destination machine. VirtaMove extracts existing enterprise applications and packages them into a container that can be provisioned and run natively on any operating system, machine, or cloud.</p> <p data-bbox="695 854 1892 1000">To migrate an application, VirtaMove is not required on the source machine. VirtaMove is required on the destination machine to tether to the application on the source machine and run the migrated virtual application appliance on the destination machine.</p> <p data-bbox="657 1057 2032 1122">https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310444457/About+Migrating+Applications?search_id=dec12687-24bb-428b-a12e-2ef9e928c184</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>Migrating an application involves the following steps:</p> <ol style="list-style-type: none"> 1. Meet requirements for your environment as well as source and destination machines. See https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310706978 Can't find link. 2. Double-click the Administrative Console shortcut icon on your desktop to start Administrative Console. 3. Create a virtual container and connect it to the source machine. 4. <u>Pre-populate the virtual container with applications, services, accounts, components, and files selected from the source machine.</u> 5. <u>Run your virtualized application on the destination machine and exercise the application.</u> See Ru nning and Exercising Your Application. 6. Run VirtaMove Dissolve if you want to <u>remove the migration container from the application and transfer the application to the underlying operating system on the destination machine so that the application will behave as if natively installed.</u> Note that this process cannot be reversed. See Diss olving a Virtual Container. You may wish to keep the <u>application running in the migration container,</u> as required. <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310739347/The+Application+Migration+Process)</p> <h2>Docking</h2> <p><u>Docking a container integrates and prepares the container's environment as part of the underlying operating system so that the application is ready to run.</u></p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311296481/Docking+and+Undocking+Containers)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>Additional evidence showing VirtaMove's infringement is found in at least the following documents:</p>  <p>(https://virtamove.com/blog/gain-migration-intelligence/)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<h2 data-bbox="678 289 1291 345">Discovering Resource Usage</h2> <p data-bbox="678 394 1165 459">  Owned by Thomas Farley (Deactivated) *** Last updated: Mar 30, 2022 • 2 min read </p> <p data-bbox="678 500 1875 532">The Resource Usage window displays a summary of resource usage data for discovered sources.</p> <p data-bbox="678 573 1581 605">Click Discover>Resource Usage. The Resource Usage page is displayed.</p> 

Claim	US 9,697,038 Claim Term	Analysis
		(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314605794/Discovering+Resource+Usage)
1d	wherein the one or more isolated environments are created during installation of the one or more applications;	<p>The Accused Products comprise a system, “wherein the one or more isolated environments are created during installation of the one or more applications.”</p> <p>For example, “[i]n the new environment, run apps in the container for portability or isolation,” implying that the isolation is created during installation of the applications.</p> 

Claim	US 9,697,038 Claim Term	Analysis
		<p>(https://virtamove.com/resources/an-intelligent-approach-to-migrating-server-applications/)</p> <p>Indeed, installation of applications requires “[c]reat[ing] a virtual container” and “pre-populat[ing] the virtual container with applications,” where such containers are isolated environments, as already indicated.</p>

The Application Migration Process



Owned by Thomas Farley (Deactivated) ...

Last updated: Mar 25, 2022 • 2 min read

Migrating an application involves the following steps:

1. Meet requirements for your environment as well as source and destination machines.

See [✖ https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310706978](https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310706978) Can't find link.

2. Double-click the **Administrative Console** shortcut icon on your desktop to start Administrative Console.

3. Create a virtual container and connect it to the source machine.

4. Pre-populate the virtual container with applications, services, accounts, components, and files selected from the source machine.

5. Run your virtualized application on the destination machine and exercise the application. See [📖 Running and Exercising Your Application](#).

6. Run VirtaMove Dissolve if you want to remove the migration container from the application and transfer the application to the underlying operating system on the destination machine so that the application will behave as if natively installed. Note that this process cannot be reversed. See [📖 Dissolving a Virtual Container](#). You may wish to keep the application running in the migration container, as required.

Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="655 274 2049 310"><u>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310739347/The+Application+Migration+Process)</u></p> <p data-bbox="655 339 1948 375">Additional evidence showing VirtaMove's infringement is found in at least the following documents:</p>

Claim	US 9,697,038 Claim Term	Analysis
		<div data-bbox="861 290 1757 417"> <h2>VirtaMove: It's Not Just Application Modernization</h2> </div> <div data-bbox="1169 448 1442 470"> <p>by NIGEL STOKES August 09, 2017</p> </div> <div data-bbox="705 537 1890 672"> <p>For some time now we've been blogging about the advantages of automated Application Modernization using our unique container-based technology for Microsoft Server environments. However, customers have discovered many advantages of VirtaMove containers that extend beyond application modernization. For years, customers have been taking advantage of VirtaMove containers to solve a range of business challenges.</p> </div> <div data-bbox="705 695 1018 719"> <h3>1. ISOLATE APPLICATIONS</h3> </div> <div data-bbox="705 734 1917 972"> <p>In many industries, like Insurance, Healthcare or Pharmaceuticals and even in Banking, customers must verify compliance of business applications to rigorous, auditable standards (for example HIPAA is a compliance standard in regulated Healthcare-related businesses). Once an application is certified, making changes requires a time consuming and expensive recertification process. To avoid recertification, customers containerize legacy applications and run them in isolation on newer OS and server environments. Containerization allows customers to run several close variations of applications, each dependent on unique but similar software stacks on the same server. The isolation provided by containerization avoids conflicts between different stacks (for example, database and driver variations) and eliminates the need to manage multiple servers and license multiple OS platforms for each application.</p> </div> <div data-bbox="705 995 1421 1021"> <h3>2. CREATE EXACT APPLICATION IMAGES FOR DEVELOPMENT</h3> </div> <div data-bbox="705 1036 1917 1201"> <p>Software development is a demanding business. Under pressure to meet deadlines, software developers may well forget about the detailed installation scripts and configuration data required to create identical cloud or test copies of an application. However, if applications are containerized, it's easy to create exact images on newer OSs such as Windows Server 2008 R2 or WS2012 or WS2016. This eliminates the need to worry about recreating an installation process or scripts. Additionally, applications that are containerized with VirtaMove on WS2008 can run seamlessly on WS2012 or WS2016.</p> </div> <div data-bbox="705 1234 1917 1331"> <p>Containerization accelerates the development and testing of new software by making it easy to create identical copies of the software on both datacentre and cloud servers. It lets the developer focus on building software that solves business problems rather than worrying about the details of configuration.</p> </div>

Claim	US 9,697,038 Claim Term	Analysis
		<p>https://virtamove.com/blog/not-just-app-modernization/)</p> <p>There are advantages to a stateful re-install on new servers with a modern operating system. Benefits include:</p> <ul style="list-style-type: none"> ❑ A re-install closes known security exposures on old W2K, WS2003, and WS2008 servers. ❑ Your apps will run on a secure, supported OS. ❑ New servers run faster and improve app performance. ❑ You can reconfigure where apps run. Apps can be split and installed on separate servers or consolidated on a single server. ❑ Once it's moved, you can easily do an in-place upgrade of the app to a new version without breaking configuration data. ❑ Legacy apps can be remediated using the tools and techniques available on a modern platform. <p>Squeeze more life out of your apps</p> <p>Moving apps that you rely on to new servers extends their useful life and eliminates the effort to redevelop or learn new systems. An automated, stateful re-install doesn't impact your existing applications and ensures good performance on new servers. It saves time and money. In one month, automation provides a ten times improvement in the number of applications that can be re-installed and cut-over into production on new servers. If you have the source code, you can plan future functional or security improvements using a conventional change management process.</p> <p>An automated, stateful re-install is the best first step. It starts your app migration journey safely and provides tangible improvements and benefits. Your apps will be in a better place, and your business along with them. VirtaMove can help you along your upgrade path. If you'd like to understand more about how we give business-critical production applications a second life by moving them to a better place, don't hesitate to give us a call. We're pleased to share what we know.</p> <p>(https://virtamove.com/blog/app-migration-journey/)</p>


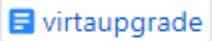
Claim	US 9,697,038 Claim Term	Analysis
1e	wherein updates to the one or more isolated environments occur as the one or more applications use additional resources; and	<p>The Accused Products comprise a system, “wherein updates to the one or more isolated environments occur as the one or more applications use additional resources.”</p> <p>For example, VirtaMove supports complex synchronization functionality and allows users to “<i>select an “update” sync to make sure that the latest files are in the VirtaMove container. The latency in the resync process depends on the amount of new data being copied into the container.</i>” You can view a Latency Report to understand available network bandwidth.”</p> <p>Here, VirtaMove’s “<i>update sync</i>” feature directly facilitates the dynamic and necessary adaptation of the isolated environments—represented by the VirtaMove containers—to accommodate new or updated application resources. The capability to sync and thus update the container contents based on the latest files reflects an intrinsic mechanism where the isolated environments evolve in response to the application’s changing resource demands. The inclusion of a Latency Report to monitor network bandwidth availability further supports this claim by ensuring that updates are not only timely but also informed by the current network conditions, optimizing the update process.</p>


Claim	US 9,697,038 Claim Term	Analysis
		<p>Step 6: Cut-Over</p> <p>Once the application is verified and passes User Acceptance testing, you can plan a cut-over into production. At a high level, cut-over might look like this: the VirtaMove CAP file is used to complete a native install of the migrated application on the modern operating system. In addition, resyncing of all dynamic data and application components is required. If a relational database is part of the migration, it too needs to be resynced. At cut-over, the Cloud app becomes the new production system, so a sequester, quiet point, or cut-over window is required. Network performance might be a challenge during the available cut-over window.</p> <p>Let's talk about syncing the container on the Cloud. Some time has passed from initial containerization and completion of User Acceptance testing. How much time depends on how long it took to complete User Acceptance testing. To resynchronize, the latest version of data and files from the source Production environment is brought over to the Cloud. If there's a long delay between initial containerization and User Acceptance testing, resynchronization may need to be completed in the local network domain before transferring the resynced CAP file to the Cloud environment. The CAP file is then used to natively re-install the application on the new server.</p> <p>VirtaMove software supports complex synchronization functionality. You can select an "update" sync to make sure that the latest files are in the VirtaMove container. The latency in the resync process depends on the amount of new data being copied into the container. You can view a Latency Report to understand available network bandwidth.</p> <p>(https://virtamove.com/blog/cloud-onboarding-with-virtamove-7-steps-to-success/)</p> <p>The "update sync" feature is also referred to as "tether sync." "When you tether and then launch the application, <i>if the application tries to open a folder and the folder does not exist on the underlying operating system of the destination machine, tether will copy that folder into the container.</i>"</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>Note:</p> <p>When you tether and then launch the application, if the application tries to open a folder and the folder <u>does not exist on the underlying operating system of the destination machine, tether will copy that folder into the container.</u></p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311427374/About+Running+and+Exercising+Your+Application)</p> <p>VirtaMove application “tethering” or “staging and verifying” involves updating the container if the application needs additional resources.</p> <div data-bbox="655 727 1953 1289" data-label="Diagram"> <p>The diagram illustrates the 'Legacy Windows Application Migration Workflow' with the steps: Capture, Flow, Transform, Apply. It shows an 'Old Server' with three application icons. One icon is captured into a 'Capture App As Is State' container. This container then flows into a 'Staging Container on Moder Server'. From there, it flows into a 'Verify State' container. Finally, the container is dissolved and the app state is applied to a new server, VM, cloud, or Windows Docker container. Red 'X' marks and green checkmarks indicate success or failure at each step.</p> </div> <p>(https://www.youtube.com/watch?v=lhVF9-wgd2M&t=1639s)</p> <p>Containers are updated with “registry keys and files” during “exercising” of the application.</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>The more you use the tethered application, the more VirtaMove learns about it. Exercise the application as much as possible before you disable Tether. Many registry keys and files do not get pulled across unless certain parts of the application are exercised. For example, right-click operations in SQL Management Studio will not work untethered if they were not exercised while tethered.</p> <p>Note:</p> <p>An application may run more slowly than you are used to when it is tethered. This is temporary; the application will run as usual on the destination machine once you have exercised the application and completed Tether.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311394514/Exercising+Your+Application)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p><u>Update Mode</u></p> <p>Using Update Mode, any files or keys that are newest will be copied. If you changed a file on both the source and destination machines, the newest file will be copied. Changes that have been made to the destination machine may not be preserved in Update Mode. You should therefore keep track of changes that were made to the destination for re-hosting or other reasons because these changes may need to be repeated.</p> <p>Example Use:</p> <p>An application has been tethered to a destination machine. Work has been performed on the destination machine, for example testing or re-configuration. Later, <u>when you want to finalize the migration, you re-tether to the original production machine to get any files that have been updated or added.</u> For example, a website installation to which changes have been made. In this case, you would use Update Mode to avoid losing modifications to the destination machine.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311329719/Using+Tether+Sync)</p> <p>“You can upgrade existing containers using the Administrative Console or the virtaupgrade CLI command.”</p>


Claim	US 9,697,038 Claim Term	Analysis
		<p><u>Upgrading Containers</u></p> <p> Owned by Thomas Farley (Deactivated) *** Last updated: Mar 28, 2022 • 1 min read</p> <p><u>You can upgrade existing containers</u> using the Administrative Console or the  CLI command.</p> <p>Containers that require upgrading are indicated in Administrative Console by the label "Needs Upgrade".</p> <p>When you upgrade a container, a backup folder is created in the container folder. Test the upgraded container and then delete the backup folder when you are satisfied that the container is running correctly.</p> <p>To Upgrade a Container</p> <ol style="list-style-type: none"> 1. In the Administrative Console, select the container that requires upgrading. 2. Select Upgrade in the toolbar. The status of the appliance changes to "Undocked". You can now select and dock the upgraded container. <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/313622641/Upgrading+Containers)</p> <p>As another example, VirtaMove's "Config-on-the-fly" feature updates configuration information of containers.</p>

Claim	US 9,697,038 Claim Term	Analysis
		<h2 data-bbox="682 282 1058 337">Config-on-the-Fly</h2> <div data-bbox="682 380 1150 440">  Owned by Thomas Farley (Deactivated) ... Last updated: Mar 28, 2022 • 2 min read </div> <h3 data-bbox="682 488 909 516">Table of Contents</h3> <ul data-bbox="682 553 1302 727" style="list-style-type: none"> • Config-on-the-fly Files and Paths • Config-on-the-fly on Demand • Mapping NICs between Source and Destination • COTF Log <hr data-bbox="682 776 1927 782"/> <p data-bbox="682 841 1898 1057">Your container may contain configuration information from another system and this information may not be compatible with the current system. For example, you may need to change IP addresses or hostnames. You can use a Config-on-the-fly file (<i>StandardCOTF.xml</i>) to update the configuration information so that it works with the current system. You may need to update the settings in the configuration file with information from the current system.</p> <hr data-bbox="1255 1084 1415 1091"/> <p data-bbox="657 1125 1791 1157">https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311263613/Config-on-the-Fly</p> <p data-bbox="657 1192 2037 1370">VirtaMove’s <i>virtacreate</i> command “<i>creates or updates a container.</i>” The <i>virtacreate</i>’s functionality inherently ensures that the isolated environments—i.e., VirtaMove’s containers—can be dynamically updated in response to the evolving needs of the applications they house. By allowing both the creation and updating of containers, VirtaMove provides mechanism for the isolated environments to adapt over time, accommodating new or changed application resources.</p>

Claim	US 9,697,038 Claim Term	Analysis												
		<div><div><div><div><div><div></div><div>TF</div></div></div><div><div><div></div><div>Owned by Thomas Farley (Deactivated) ***</div><div>Last updated: Mar 28, 2022 • 1 min read</div></div></div></div></div><div><div><div><div></div><div>virtacreate</div></div></div><div><div><div></div><div>This command creates or updates a container. Administrator privileges are required.</div></div></div><div><div><div></div><div>You cannot create a container if shortnames are disabled (if <code>ntfsDisable8dot3NameCreation</code> is set to 1 in the registry key <code>HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\File System</code>).</div></div></div></div><div><div><div><div></div><div>Syntax</div></div></div><div><div><div><div></div><div>1 VIRTACREATE Appliance /E</div></div></div><div><div><div></div><div>1 VIRTACREATE Appliance /C <path_to_appliance_to_clone></div></div></div><div><div><div></div><div>1 VIRTACREATE Appliance /N <path_to_template></div></div></div><div><div><div></div><div>1 VIRTACREATE Appliance /T <path_to_template> [<server server username password>]</div></div></div></div></div><div><div><div><div></div><div>Options</div></div></div><div><table><tr><th>Option</th><th>Description</th></tr><tr><td>Appliance</td><td>Full path of the container to create or update. The path cannot contain spaces.</td></tr><tr><td>/E</td><td>Create a container with no file set (contains only VirtaMove proprietary files and properties).</td></tr><tr><td>/C</td><td>Clone a container.</td></tr><tr><td>/N</td><td>Create a container from a container template.</td></tr><tr><td>/T</td><td>Create a container from a container template using tether. Credentials can be provided. If VirtaMove Source Agent is installed on the source machine, you do not need to provide credentials for the source machine.</td></tr></table></div></div></div> <div><div><div><div></div><div>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314212506/virtacreate)</div></div></div><div><div><div></div><div>VirtaMove provides “cloud tools to manage app usage” and “optimized storage,” indicating that updates occur as applications use additional resources.</div></div></div></div> </	Option	Description	Appliance	Full path of the container to create or update. The path cannot contain spaces.	/E	Create a container with no file set (contains only VirtaMove proprietary files and properties).	/C	Clone a container.	/N	Create a container from a container template.	/T	Create a container from a container template using tether. Credentials can be provided. If VirtaMove Source Agent is installed on the source machine, you do not need to provide credentials for the source machine.
Option	Description													
Appliance	Full path of the container to create or update. The path cannot contain spaces.													
/E	Create a container with no file set (contains only VirtaMove proprietary files and properties).													
/C	Clone a container.													
/N	Create a container from a container template.													
/T	Create a container from a container template using tether. Credentials can be provided. If VirtaMove Source Agent is installed on the source machine, you do not need to provide credentials for the source machine.													

Claim	US 9,697,038 Claim Term	Analysis
		<p>3 Up-level your apps</p> <p>VirtaMove doesn't copy outdated OSs to VMs. It up-levels apps to new OS versions. VM noise is reduced by moving apps from old OSs like WS2003 or WS2008 to a modern, greenfield OS like WS2012, WS2016, and WS2019. Uplifting apps to a new OS can be done with less than one-quarter of the bandwidth, storage, and processing needed for full VM cloning. Up-leveling closes security holes.</p> <p>4 Use advanced cloud tools</p> <p>A modern OS lets you use advanced datacenter and cloud tools to manage app usage and reduce VM noise levels. You avoid the cost of patching and maintaining old OSs. Better OS management and fresh app installs mean less noisy operations with:</p> <ul style="list-style-type: none"> ❑ Optimized storage ❑ Improved performance <p>(https://virtamove.com/blog/virtamove-as-a-devops-tool/)</p>
1f	wherein the one or more isolated environments are copied to storage and then removed as part of an uninstall of the one or more applications.	<p>The Accused Products comprise a system, “wherein the one or more isolated environments are copied to storage and then removed as part of an uninstall of the one or more applications.”</p> <p>VirtaMove offers the “dissolve” functionality, where isolated environments—i.e., VirtaMove’s containers—are copied to a system and then “dissolved.” By choosing to “dissolve” the container, the container is removed, and the contents of the container, which includes the application, are transferred to the underlying operating system of the destination machine.</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>Moving Containers</p> <p><u>To move a container between two machines, you must compress the container into a .cap file. You move only .cap files between machines.</u></p> <p>If scripts are required for the tethering process, place the scripts in the container's <code>scripts</code> folder before you move a container.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/313884729/Moving+Compressing+and+Deleting+Containers)</p> <p>6. Run <u>VirtaMove Dissolve</u> if you want to <u>remove the migration container from the application and transfer the application</u> to the underlying operating system on the destination machine so that <u>the application will behave as if natively installed</u>. Note that this process cannot be reversed. See Dissolving a Virtual Container. You may wish to keep the application running in the migration container, as required.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310739347/The+Application+Migration+Process)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<h2 data-bbox="674 280 1157 334">Dissolving a Container</h2> <div data-bbox="674 383 1157 444">  Owned by Thomas Farley (Deactivated) *** Last updated: Mar 28, 2022 • 2 min read </div> <p data-bbox="674 492 1913 670"><u>After you have migrated an application and exercised it, you can choose to dissolve the migration container. This transfers the application to the underlying operating system of the destination machine so that the migrated application behaves as if it had been installed there. All dependencies on VirtaMove are removed.</u></p> <p data-bbox="657 732 1871 768">https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311394908/Dissolving+a+Container</p>

About Dissolve



Owned by Thomas Farley (Deactivated) ***

Last updated: Mar 28, 2022 • 4 min read


Table of Contents

- [The Dissolve Process](#)
- [Application-Specific User and Group Accounts](#)
- [Dissolve and Drive Letters](#)
- [Dissolve and vdrives](#)
- [Using Config-on-the-fly with Dissolve](#)
 - [To Enable Config-on-the-fly Using the Administrative Console](#)
- [Config-on-the-fly on Demand and Dissolve](#)
- [Dissolving IIS Applications](#)
- [Enabling Dissolve for an Existing Installation](#)
 - [To Enable Dissolve for an Existing VirtaMove Installation](#)

Dissolve is a VirtaMove CLI utility that lets you remove VirtaMove encapsulation from the migration container and transfer the migrated application to the underlying operating system of the destination machine so that the application will behave as if natively installed.

There is no limit to the number of times that you can run the `virtadissolve` command on an appliance. If your VirtaMove license key does not include Dissolve, contact your VirtaMove Sales Representative to inquire about evaluating the Dissolve function.


Claim	US 9,697,038 Claim Term	Analysis
		<p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311460124/About+Dissolve)</p> <p>“Once user acceptance testing (UAT) of the application is complete, <i>the application can be removed from its container</i> and installed onto the destination operating system, <i>removing any dependency on VirtaMove software</i>. Now the application has been fully migrated onto the new destination server and the legacy Windows 2003 server can be <i>decommissioned</i>.”</p> <div data-bbox="659 513 1955 948" style="background-color: #2c3e50; color: white; padding: 10px;"> <p>#5 – TEST. TEST AGAIN. AND TEST SOME MORE</p> <p>Thanks to all your preparations, the migration rubber hits the road. You’re going zero to sixty in no time, and you feel the wind in your hair. Following VirtaMove’s rigorous migration methodology, with Scott riding shotgun beside you, means success at this stage.</p> <p>Now’s the time to thoroughly test the application while it’s still tethered in its container. Use all of the components and features of the application to make sure that everything is working as expected and the application is viable on the destination server. There’s no such thing as too much testing. For example, right-click operations in SQL Management Studio will not work untethered if they were not exercised while tethered.</p> <div data-bbox="667 818 1913 935" style="border: 2px solid red; padding: 5px;"> <p>Once user acceptance testing (UAT) of the application is complete, the application can be removed from its container and installed onto the destination operating system, removing any dependency on VirtaMove software. Now the application has been fully migrated onto the new destination server and the legacy Windows 2003 server can be decommissioned.</p> </div> </div> <p>(https://virtamove.com/blog/five-keys-to-a-successful-migration/)</p> <p>VirtaMove allows for moving application containers, backing up said containers, and/or deleting said containers after application migration to the destination machine. Container templates may also be generated and copied to storage.</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="667 298 1102 347">Moving Containers </p> <p data-bbox="667 380 1892 456"><u>To move a container between two machines, you must compress the container into a .cap file.</u> You move only .cap files between machines.</p> <p data-bbox="667 493 1902 570">If scripts are required for the tethering process, place the scripts in the container's <code>scripts</code> folder before you move a container.</p> <p data-bbox="655 634 2045 711"><u>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/313884729/Moving%2C+Compressing%2C+and+Deleting+Containers)</u></p>

Claim	US 9,697,038 Claim Term	Analysis
		<h2 data-bbox="695 289 894 345">Docking</h2> <p data-bbox="695 378 1896 472"><u>Docking a container integrates and prepares the container's environment as part of the underlying operating system so that the application is ready to run.</u></p> <p data-bbox="695 513 1885 659">When you dock a container, it is registered with VirtaMove and any system definitions that were defined for the container when it was created. System definitions include file associations; in some cases, a file may need to be copied to the operating system.</p> <p data-bbox="695 699 1919 951">VirtaMove runs a basic sanity test on a container when you attempt to dock the container. Certain conditions on an operating system may interfere with VirtaMove software and an attempt to dock a container, such as an antivirus software or group account permissions. In such a case, the following error message may be displayed when docking fails:</p> <div data-bbox="695 992 1644 1032" style="background-color: #f0f0f0; padding: 5px;"> <p data-bbox="695 992 1644 1032">Failed to intercept OS calls. Sanity test failed. Cannot dock.</p> </div> <p data-bbox="657 1105 2049 1146">https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311296481/Docking+and+Undocking+Containers</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="682 297 1241 354">To Prepare for Dissolve</p> <ol data-bbox="699 383 1892 959" style="list-style-type: none"> 1. Uncompress the container if it is compressed: in the Administrative Console, select the container, and then click Uncompress. 2. If services are associated with the selected container and these services are running, click the Services tab, then right-click each service and select Stop to stop the services. 3. Click Undock. 4. Click the Tether tab. 5. Disable Tether if it is enabled: de-select the Enable Tether check box. 6. Click Save. 7. At the prompt, click Yes or No to <u>regenerate the container template as appropriate</u>. <p data-bbox="657 1027 1980 1060">(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311427461/Dissolving+a+Virtual+Container)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>To Delete and Recreate a Container</p> <ol style="list-style-type: none"> 1. Undock the container using the <code>virtaundock</code> command. 2. Do one of the following: <ol style="list-style-type: none"> a. <u>Create a backup copy of the container template. Delete the container and then</u> make the necessary changes to the template and use the <code>virtacreate</code> <code>/T</code> command to recreate the container. b. <u>Delete</u> the container and start over. 3. Dock, start the container's services (if required), and run the container to confirm the changes have been made. <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314114051/Testing+Containers)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="667 293 919 331">Disabling Tether</p> <p data-bbox="667 367 1014 407">  Owned by Thomas Farley (Deactivated) *** Last updated: Mar 28, 2022 • 1 min read </p> <p data-bbox="667 443 1881 500">You can disable Tether after you undock a container. New file and registry entries may have been copied to the container during previous Tether activities, and so you may wish to regenerate the container template for a container when you disable Tether.</p> <p data-bbox="667 524 1934 589"> You can use the Administrative Console to disable Tether and regenerate a container template. Alternatively, you can use the CLI command <code>virtapedit</code>. </p> <p data-bbox="667 646 1388 678">To Disable Tether and Regenerate a Container Template</p> <ol data-bbox="678 699 1577 881" style="list-style-type: none"> 1. Select and then undock the container for which you enabled Tether. 2. Click the Tether tab. 3. Click the Use Tether check box to de-select the check box. 4. Click Save. 5. <u>To regenerate the container template for the selected container</u>, click the Yes button at the prompt. <p data-bbox="657 938 1780 971">(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311394878/Disabling+Tether)</p>

virtacreate



Owned by Thomas Farley (Deactivated) ***
Last updated: Mar 28, 2022 • 1 min read

This command creates or updates a container. Administrator privileges are required.

You cannot create a container if [shortnames](#) are disabled (if `NtfsDisable8dot3NameCreation` is set to 1 in the registry key `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\File System`).

Syntax

```
1 VIRTACREATE Appliance /E
```


```
1 VIRTACREATE Appliance /C <path_to_appliance_to_clone>
```

```
1 VIRTACREATE Appliance /N <path_to_template>
```

```
1 VIRTACREATE Appliance /T <path_to_template> [<server|server username password>]
```

Options

Option	Description
Appliance	Full path of the container to create or update. The path cannot contain spaces.
/E	Create a container with no file set (contains only VirtaMove proprietary files and properties).
/C	Clone a container.
/N	Create a container from a container template.
/T	Create a container from a container template using tether. Credentials can be provided. If VirtaMove Source Agent is installed on the source machine, you do not need to provide credentials for the source machine.

Claim	US 9,697,038 Claim Term	Analysis
		<p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314212506/virtacreate)</p> <h2 data-bbox="674 347 1014 388">Upgrading Containers</h2> <p data-bbox="674 420 1020 464">  Owned by Thomas Farley (Deactivated) *** Last updated: Mar 28, 2022 • 1 min read </p> <p data-bbox="674 496 1640 524">You can upgrade existing containers using the Administrative Console or the <code>virtaupgrade</code> CLI command.</p> <p data-bbox="674 548 1604 574">Containers that require upgrading are indicated in Administrative Console by the label "Needs Upgrade".</p> <p data-bbox="674 599 1902 659"><u>When you upgrade a container, a backup folder is created in the container folder.</u> Test the upgraded container and then delete the backup folder when you are satisfied that the container is running correctly.</p> <p data-bbox="674 691 894 717">To Upgrade a Container</p> <ol data-bbox="674 737 1923 802" style="list-style-type: none"> 1. In the Administrative Console, select the container that requires upgrading. 2. Select Upgrade in the toolbar. The status of the appliance changes to "Undocked". You can now select and dock the upgraded container. <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/313622641/Upgrading+Containers)</p> <div data-bbox="653 932 1923 1276" style="border: 2px solid red; padding: 10px;"> <h2 data-bbox="667 940 1150 989">Deleting Containers</h2> <p data-bbox="667 1029 1409 1062">You can delete a container that is no longer required.</p> <p data-bbox="667 1110 1892 1256">Use the Administrative Console Delete function to delete a container to make sure that a container is undocked and that none of the processes that belong to the container are still running. Do not use the operating system Delete command to delete a container.</p> </div> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/313884729/Moving+Compressing+and+Deleting+Containers)</p>


Claim	US 9,697,038 Claim Term	Analysis
		<p>Once applications are containerized using VirtaMove, “<i>backup copies of the containerized applications can be stored for recovery or distribution purposes.</i>” VirtaMove stores backup copies of containerized applications, essentially copying the isolated environments to storage. This capability ensures that entire application environments, once isolated and containerized, can be replicated and stored for purposes like recovery, packaging or distribution. If containers—or containerized applications—are no longer required, they may be uninstalled—or deleted, as demonstrated above.</p>

Claim	US 9,697,038 Claim Term	Analysis
		<div data-bbox="657 264 1955 1227"> <h2 data-bbox="842 282 1791 415">Using VirtaMove to Solve Datacenter Management Problems</h2> <p data-bbox="1188 444 1440 464">by VALERIE YATES May 01, 2018</p> <p data-bbox="697 537 1871 597">For years, customers have been taking advantage of VirtaMove containers to solve a range of business challenges in the datacenter management sphere.</p> <p data-bbox="697 626 1010 646">1. ISOLATE APPLICATIONS</p> <p data-bbox="697 667 1906 800">In industries like Insurance, Healthcare, Pharma, and Banking, customers must verify compliance to rigorous, auditable standards. Once an app is certified, making changes requires a time consuming and expensive recertification process. To avoid recertification, customers containerize legacy apps and run them in isolation on new OS and servers. Containerization allows customers to run several close variations of apps, each dependent on unique but similar software stacks on the same server.</p> <p data-bbox="697 829 1423 849">2. CREATE EXACT APPLICATION IMAGES FOR DEVELOPMENT</p> <p data-bbox="697 870 1906 964">If apps are containerized, it's easy to create exact images on new OSs such as Windows Server WS2012, WS2016, or WS2019. This eliminates the need to worry about recreating an installation process. Containerization accelerates the development and testing of new software by making it easy to create identical copies of the software on both datacenter and cloud servers.</p> <p data-bbox="697 993 1472 1013">3. STORE MASTER COPIES OF APPLICATIONS FOR DISTRIBUTION</p> <p data-bbox="697 1034 1902 1128">Once apps are containerized using VirtaMove, backup copies of the containerized apps can be stored for recovery, packaging, or distribution purposes. The master copy of an app stored in a container can be used to create a fresh, decluttered installation of an app, free of malware or other exposures.</p> <p data-bbox="697 1166 1299 1185">Read the Blog: VirtaMove – It's Not Just Application Modernization</p> </div> <p data-bbox="657 1263 1551 1295">(https://virtamove.com/blog/solve-datacenter-management-problems/)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>3. CONTAINERIZE AND ISOLATE APPLICATIONS</p> <p><i>The problem:</i> In regulated businesses, customers need to modernize certified applications that are running on legacy operating systems so that they can enable these apps on a supported OS. In many industries, like Insurance, Healthcare, Pharmaceuticals, and Banking, customers must verify compliance of business applications to rigorous, auditable standards (HIPAA and HITECH, for example, are compliance standards in regulated Healthcare-related businesses). Once an application is certified, making changes requires a time consuming and expensive re-certification process.</p> <p><i>The VirtaMove solution:</i> Avoid the pain of re-certification by using VirtaMove to containerize legacy applications and run them in isolation on modern OS and server environments.</p> <p>Containerization allows customers to run several close variations of applications, each dependent on unique but similar software stacks on the same server. The isolation provided by VirtaMove containers avoids conflicts between different stacks (for example, database and driver variations) and eliminates the need to manage multiple servers and license multiple OS platforms for each application. In addition, security and performance are improved by virtue of running on a modern server platform.</p> <p>4. CREATE IDENTICAL APPLICATION IMAGES FOR TEST, DEVELOPMENT, OR BACKUP</p> <p><i>The problem:</i> Software development is a demanding business. Under pressure to meet deadlines, software developers might forget about the detailed installation scripts and configuration data required to create identical Cloud or Test copies of an application. Having identical Test and Development environments ensures that you've synchronized and are testing the current development version of software. Where identical development environments are not available, you're likely to see frequent problems with version and feature regression. Having a backup copy of both Development and Production instances is also critical for business continuity.</p> <p><i>The VirtaMove solution:</i> VirtaMove containerizes applications. Containerization accelerates the development and testing of new software by making it easy to create identical copies of the software on both datacenter and Cloud servers, on newer OSs such as Windows Server 2008 R2, WS2012, or WS2016. This eliminates the need to worry about recreating an installation process or scripts. It lets the developer focus on building software that solves business problems rather than worrying about the details of configuration.</p> <p>Using VirtaMove, applications containerized on WS2008 can run seamlessly on WS2012 or WS2016. Once applications are containerized, backup copies of the containerized applications can be stored for recovery or distribution purposes. The master copy of an application stored in a container can be used to create a fresh, uncluttered installation of an application, free of malware or other exposures.</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>(https://virtamove.com/blog/q-and-a/)</p> <div data-bbox="659 334 1955 1019" style="background-color: #1a2b4a; color: white; padding: 10px;"> <p>2. CREATE EXACT APPLICATION IMAGES FOR DEVELOPMENT</p> <p>Software development is a demanding business. Under pressure to meet deadlines, software developers may well forget about the detailed installation scripts and configuration data required to create identical cloud or test copies of an application. However, if applications are containerized, it's easy to create exact images on newer OSs such as Windows Server 2008 R2 or WS2012 or WS2016. This eliminates the need to worry about recreating an installation process or scripts. Additionally, applications that are containerized with VirtaMove on WS2008 can run seamlessly on WS2012 or WS2016.</p> <p>Containerization accelerates the development and testing of new software by making it easy to create identical copies of the software on both datacentre and cloud servers. It lets the developer focus on building software that solves business problems rather than worrying about the details of configuration.</p> <p>3. STORE MASTER COPIES OF APPLICATIONS FOR RECOVERY PURPOSES</p> <p>Once applications are containerized using VirtaMove, backup copies of the containerized applications can be stored for recovery or distribution purposes. The master copy of an application stored in a container can be used to create a fresh, decluttered installation of an application, free of malware or other exposures.</p> <p><i>Isolate, replicate, and recover or distribute.</i> These are just three of the many benefits and uses of VirtaMove containers, which customers rely on every day. To learn more about other use cases or how VirtaMove can help accelerate and modernize your Windows Server infrastructure, please call or e-mail us.</p> </div> <p>(https://virtamove.com/blog/not-just-app-modernization/)</p> <p>Additional evidence showing VirtaMove's infringement is found in at least the following documents:</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>Option 4: The better way, a stateful re-install</p> <p>A stateful re-install using VirtaMove migration technology and methodology gets your legacy apps to a better place without the need for a stepwise upgrade process and without the risks of an in-place OS upgrade. You get to keep all the valuable historical information that your organization depends on. VirtaMove uses a proprietary, lightweight container as a moving box for stateful apps. Our intelligent migration software automatically discovers apps across your network, and then packages them and all their components into a container on the new destination server. The containerized application is isolated from the underlying operating system and is portable. Perfect for testing on a new OS and a new server. There's no permanent reliance on our container: it can be removed at the end of the migration. When the container is removed, the app is re-installed on the new destination server. It then runs natively on a modern Windows Server OS, with all its configuration, patches, and upgrades. If you choose to run an app in a container, it can run on a hypervisor. You can reconfigure dynamically. Roll out as and where required, and use step snapshots to roll back easily if required.</p> <p>BENEFITS OF A STATEFUL RE-INSTALL</p> <p>Re-installing apps on new servers brings advantages:</p> <ul style="list-style-type: none"> ❑ A new server and modern OS close known security exposures. ❑ New hardware improves performance. ❑ Apps can be split or consolidated. ❑ Software components, such as IIS and SQL, can be upgraded for new servers. ❑ A re-install reduces clutter and lets you install on modern datacenter VMs or the cloud. You can manage servers with DevOps tools. <p>(https://virtamove.com/blog/an-in-place-os-upgrade-isnt-the-answer/)</p>


Claim	US 9,697,038 Claim Term	Analysis
		<p>The Application Migration Process</p> <p> Owned by Thomas Farley (Deactivated) *** Last updated: Mar 25, 2022 • 2 min read</p> <p>Migrating an application involves the following steps:</p> <ol style="list-style-type: none"> 1. Meet requirements for your environment as well as source and destination machines. See https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310706978 Can't find link. 2. Double-click the Administrative Console shortcut icon on your desktop to start Administrative Console. 3. Create a virtual container and connect it to the source machine. 4. Pre-populate the virtual container with applications, services, accounts, components, and files selected from the source machine. 5. Run your virtualized application on the destination machine and exercise the application. See Running and Exercising Your Application. 6. Run VirtaMove Dissolve if you want to remove the migration container from the application and transfer the application to the underlying operating system on the destination machine so that the application will behave as if natively installed. Note that this process cannot be reversed. See Dissolving a Virtual Container. You may wish to keep the application running in the migration container, as required. <p>Pre-Populate</p> <p>Pre-populating a container is part of the VirtaMove application migration process. Pre-population migrates remote products, services, users, and groups without requiring downtime of the application on the source server. Any locked files will not be copied over until the application is fully exercised.</p> <p>Pre-populate captures components of the application while the application is up and running on the source server. You can then schedule a maintenance window at a later time for the application. It is during this maintenance window that you would stop and shut down the application before you complete the migration by exercising the application.</p> <p>Pre-populate occurs when you click the Pre-Populate button in the VirtaMove Administrative Console under the Tether tab. A window displays the status of the Pre-Populate process.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310739347/The+Application+Migration+Process)</p>





Claim	US 9,697,038 Claim Term	Analysis
		<p>Application install scripts and source code are often missing. If available, they're likely out of date. Using out of date install scripts means that the current state of legacy applications, with all their pre-installed patches and updates, is not captured or containerized. You've simply put the original version of the application in a box, not the legacy system version that is currently in production.</p> <p>In addition, apps that are loaded into a container are permanently dependent on the container, there's no easy rollback to a native OS install. Relying on the container as a destination means the app lives with management overhead, system overhead, and another layer of lock-in.</p> <p>Windows Docker containers won't easily run WS2003 and WS2008 legacy applications on WS2016 or WS2019, now or in the foreseeable future. We've learned from experience many issues need to be addressed to make legacy Windows apps run in a container.</p> <p>So, let's go back to our original question: Is containerizing Windows Server applications always a good idea? Containers may make sense if you're using containers for new greenfield application development or on mature Linux platforms. In this scenario you could leverage APIs, containerization, application virtualization, or a microservices architecture as a basis for new applications. However, using containers by default for legacy applications may not pay off given the performance and management overheads we've discussed.</p> <p>There's a better way: an automated, stateful, native re-install on the Host OS</p> <p>Instead of permanently containerizing legacy apps with all the security, performance and maintainability issues in a WDC, you could consider an alternative: an automated, stateful re-install of legacy apps on a modern server and Host OS.</p> <p>At VirtaMove, we use our own lightweight container for isolation and testing on a host server. However, there is no permanent reliance on our container: it can be removed at the end of the moving process. Free of the container, the legacy application can run natively on a modern Host Windows OS. This allows you to manage legacy applications using a conventional change management process and eliminate the permanent overheads of containers.</p> <p>(https://virtamove.com/blog/running-apps-containers-performance-consequences/)</p>


Claim	US 9,697,038 Claim Term	Analysis
2	The system according to claim 1, wherein the one or more applications are isolated from other applications and a host operating system while the one or more applications run within the one or more isolated environments.	<p>The Accused Products comprise a system as claimed in claim 1. <i>See</i> claim 1. The Accused Products comprise a system “wherein the one or more applications are isolated from other applications and a host operating system while the one or more applications run within the one or more isolated environment.”</p> <p>For example, “[a]n application can run in an VirtaMove container, isolated from other applications.”</p>


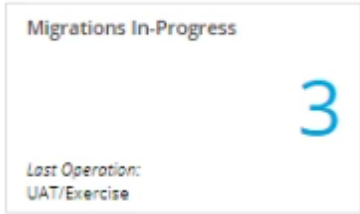
Claim	US 9,697,038 Claim Term	Analysis
		<div data-bbox="657 264 1934 1365"> <h2 style="text-align: center;">Help Guide Us to the Promised Land</h2> <p style="text-align: center;">by NIGEL STOKES March 01, 2016</p> <p>At VirtaMove, we work closely with customers to understand business requirements and drivers. The future road map and enhancement list for our products is driven by how customers use our solutions. VirtaMove technology has helped in Banking, Finance, Pharmaceutical, Healthcare, and Retail and many other industries.</p> <p>Even though Windows Server 2003 is now under time limited extended support, there are more than 10 million servers still running on it.</p> <p>Let's take a closer look at some of the ways VirtaMove can alleviate modernization pain points, across industries:</p> <ul style="list-style-type: none"> ❑ Leave old OS in the dust: VirtaMove can migrate an application from Windows Server 2000, Windows Server 2003, or Windows Server 2008 to a new Windows Server 2008 R2 or Windows Server 2012/R2 OS, without the pain and time commitment of reinstallation. ❑ Migrate and upgrade in one step: VirtaMove can migrate Microsoft IIS data and components from an old operating system to new operating system while upgrading to a newer version of IIS on the destination server, in one easy, magic step. ❑ Get on board the Cloud: VirtaMove can migrate enterprise Windows server applications to a public or private cloud like Azure, IBM Softlayer or Amazon. ❑ Distribute your applications: VirtaMove puts your applications in containers, and you can distribute these containers across different environments for different purposes. Turn these containers on when you need them for testing and development, for example, and then turn them off when you don't. Compress containers and keep them – the "gold image" can be handy for application recovery and DR. ❑ Isolate your applications: An application can run in an VirtaMove container, isolated from other applications and abstracted from operating system drives on the destination server. For example, isolation is helpful in Citrix environments when operating system drives on the source server don't match operating system drives on the destination server – eliminating the headache of drive mapping for you. </div>

Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="657 272 1495 305"><u>(https://virtamove.com/blog/help-guide-us-to-the-promised-land/)</u></p> <p data-bbox="657 337 2039 446">VirtaMove’s containers are “isolated environments,” where applications are able to run. Indeed, containerized applications are isolated from other applications, whether they are natively installed or in their own respective containers, and from the underlying operating system.</p>



Claim	US 9,697,038 Claim Term	Analysis
		<h2 data-bbox="688 300 1386 357">About Migrating Applications</h2> <div data-bbox="688 414 1218 479">  Owned by Thomas Farley (Deactivated) *** Last updated: Mar 25, 2022 • 2 min read </div> <p data-bbox="688 527 1890 771">VirtaMove Application Migration is an intelligent discovery tool that migrates an application and its dependencies from a tethered source machine to a destination machine. <u>VirtaMove extracts existing enterprise applications and packages them into a container that can be provisioned and run natively on any operating system, machine, or cloud.</u></p> <p data-bbox="688 820 1879 966">To migrate an application, VirtaMove is not required on the source machine. VirtaMove is required on the destination machine to tether to the application on the source machine and run the migrated virtual application appliance on the destination machine.</p> <p data-bbox="688 1006 1848 1096"><u>Once you have migrated the application, you can then dissolve the application to the underlying operating system using VirtaMove Dissolve.</u></p> <p data-bbox="688 1136 1669 1177">You use the VirtaMove Administrative Console to migrate an application.</p> <p data-bbox="657 1226 1963 1266">(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310444457/About+Migrating+Applications)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<h2 data-bbox="680 282 1274 323">The Application Migration Process</h2> <p data-bbox="680 363 1068 412">  Owned by Thomas Farley (Deactivated) *** Last updated: Mar 25, 2022 • 2 min read </p> <p data-bbox="680 453 1215 477">Migrating an application involves the following steps:</p> <ol data-bbox="680 509 1562 1110" style="list-style-type: none"> 1. Meet requirements for your environment as well as source and destination machines. See  https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310706978 Can't find link. 2. Double-click the Administrative Console shortcut icon on your desktop to start Administrative Console. 3. <u>Create a virtual container and connect it to the source machine.</u> 4. <u>Pre-populate the virtual container with applications, services, accounts, components, and files selected from the source machine.</u> 5. Run your virtualized application on the destination machine and exercise the application. See  Running and Exercising Your Application. 6. Run VirtaMove <u>Dissolve if you want to remove the migration container</u> from the application and transfer the application to the underlying operating system on the destination machine so that the application will behave as if natively installed. Note that this process cannot be reversed. See  Dissolving a Virtual Container. You may wish to keep the application running in the migration container, as required. <p data-bbox="659 1175 2039 1208">(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310739347/The+Application+Migration+Process)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<h2 data-bbox="695 302 1499 358">Upgrading Dissolved Applications</h2> <div data-bbox="695 415 1226 480"> Owned by Thomas Farley (Deactivated) *** Mar 03, 2022 • 1 min read</div> <p data-bbox="695 532 1913 789">If you do not dissolve a container and choose to <u>run the migrated application in the container</u>, patch or upgrade tools must run inside the container and not on the underlying operating system. This approach should work if an MSI installer is not used. If there is an MSI installer, then you should dissolve the container and try the upgrade again.</p> <p data-bbox="657 829 2022 862">https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311460195/Upgrading+Dissolved+Applications</p>

Claim	US 9,697,038 Claim Term	Analysis
		<h2 data-bbox="667 284 1717 341">Step 3: Test the Application in the Container</h2> <div data-bbox="674 399 737 464">  </div> <div data-bbox="751 399 1207 464"> <p>Owned by Thomas Farley (Deactivated) *** Mar 29, 2022 • 2 min read</p> </div> <p data-bbox="667 516 1900 771">Once the migration container is prepopulated with the application and its dependencies, you can start <u>testing the application in the container</u> to make sure that it performs as expected. The Testing team will exercise the application, which means using all its features and functions so that V-Maestro is able to capture these elements in a complete migration template.</p> <p data-bbox="667 812 1816 901">The testing team will RDP into the destination machine to start the application and perform the exercise operation.</p> <div data-bbox="678 979 1035 1190">  </div> <p data-bbox="657 1258 2037 1331">(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314671696/Step+3+Test+the+Application+in+the+Container)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>“The one or more applications are isolated from other applications and a host operating system while the one or more applications run within the one or more isolated environments” until the applications are dissolved. “Dissolve is a VirtaMove CLI utility that lets you <i>remove VirtaMove encapsulation from the migration container and transfer the migrated application to the underlying operating system of the destination machine</i> so that the application will behave <i>as if natively installed</i>.”</p> <p>About Dissolve</p> <p> Owned by Thomas Farley (Deactivated) *** Last updated: Mar 28, 2022 • 4 min read</p> <p>Table of Contents</p> <ul style="list-style-type: none"> • The Dissolve Process • Application-Specific User and Group Accounts • Dissolve and Drive Letters • Dissolve and vdrives • Using Config-on-the-fly with Dissolve <ul style="list-style-type: none"> ◦ To Enable Config-on-the-fly Using the Administrative Console • Config-on-the-fly on Demand and Dissolve • Dissolving IIS Applications • Enabling Dissolve for an Existing Installation <ul style="list-style-type: none"> ◦ To Enable Dissolve for an Existing VirtaMove Installation <hr/> <p>Dissolve is a VirtaMove CLI utility that lets you remove VirtaMove encapsulation from the migration container and transfer the migrated application to the underlying operating system of the destination machine so that the application will behave as if natively installed.</p> <p>There is no limit to the number of times that you can run the <code>virtadissolve</code> command on an appliance. If your VirtaMove license key does not include Dissolve, contact your VirtaMove Sales Representative to inquire about evaluating the Dissolve function.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311460124/About+Dissolve)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<h2 data-bbox="688 282 1633 337">Step 4: Optionally Dissolve the Container</h2> <div data-bbox="688 391 1207 456">  Owned by Thomas Farley (Deactivated) *** Mar 29, 2022 • 1 min read </div> <div data-bbox="688 505 1934 716" style="border: 2px solid red; padding: 10px;"> <p>If you don't want to leave the migrated application to run in the container on the destination, you can choose to remove the migration container and push the application to the operating system of the destination, where it will behave as if natively installed. For information about Dissolve, see the VirtaMove Administration Guide.</p> </div> <p data-bbox="688 743 1814 829">You must make sure that the destination has adequate storage to accommodate Dissolve. The required storage profile is indicated in the Destination Details window.</p> <div data-bbox="688 894 1253 1057"> <p>Required Storage Profile to Dissolve VAA</p> <p>C: (325 GB) </p> </div> <p data-bbox="688 1117 1877 1214">For additional information about Dissolve storage requirements, see Discovering Capacity Requirements.</p>


Claim	US 9,697,038 Claim Term	Analysis
3	The system according to claim 1 comprising one or more interception layers configured to intercept access to host operating system resources and host operating system interfaces.	<p>The Accused Products comprise a system as claimed in claim 1. <i>See</i> claim 1. The Accused Products comprise a system, “comprising one or more interception layers configured to intercept access to host operating system resources and host operating system interfaces.”</p> <h2 data-bbox="674 418 877 475">Docking</h2> <p data-bbox="674 508 1913 602">Docking a container integrates and prepares the container’s environment as part of the underlying operating system so that the application is ready to run.</p> <p data-bbox="674 643 1898 789">When you dock a container, it is registered with VirtaMove and any system definitions that were defined for the container when it was created. System definitions include file associations; in some cases, a file may need to be copied to the operating system.</p> <p data-bbox="674 829 1927 1084">VirtaMove runs a basic sanity test on a container when you attempt to dock the container. Certain conditions on an operating system may interfere with VirtaMove software and an attempt to dock a container, such as an antivirus software or group account permissions. In such a case, the following error message may be displayed when docking fails:</p> <p data-bbox="680 1133 1646 1170"><u>Failed to intercept OS calls. Sanity test failed. Cannot dock.</u></p> <p data-bbox="657 1224 2049 1256">(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311296481/Docking+and+Undocking+Containers)</p>

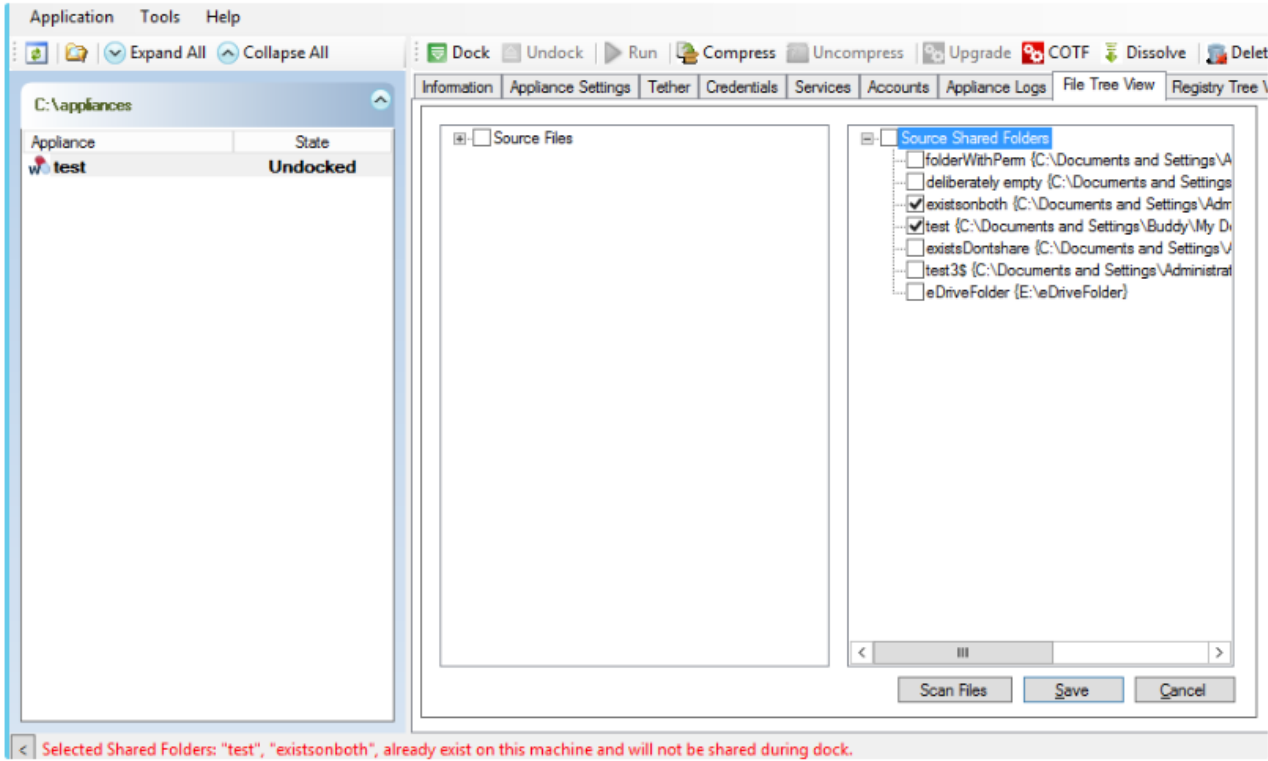
Claim	US 9,697,038 Claim Term	Analysis			
		<p>Dock Intercept</p> <p>This is a blocking issue.</p> <p>This section indicated whether the sanity test has passed or not on the destination machine. <u>VirtaMove requires the ability to intercept system calls between the application and the operating system on the destination machine.</u> Certain conditions on an operating system may interfere with VirtaMove software and an attempt to dock a container, such as antivirus software or group account permissions.</p> <p>The following error message may be displayed when Audit fails:</p> <div>1 Failed to intercept OS calls. Sanity test failed. Cannot dock.</div> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310804512/Understanding+Audit)</p> <table><tr><td>CPROP_INTERCEPT_V ER</td><td><u>The VirtaMove version that monitors the container properties and system intercepts to ensure the application runs smoothly, just as it would if normally installed directly into the underlying operating system.</u></td><td>Read-only</td></tr></table>	CPROP_INTERCEPT_V ER	<u>The VirtaMove version that monitors the container properties and system intercepts to ensure the application runs smoothly, just as it would if normally installed directly into the underlying operating system.</u>	Read-only
CPROP_INTERCEPT_V ER	<u>The VirtaMove version that monitors the container properties and system intercepts to ensure the application runs smoothly, just as it would if normally installed directly into the underlying operating system.</u>	Read-only			

Claim	US 9,697,038 Claim Term	Analysis
		(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314048600/Container+Properties)
4	The system according to claim 3, wherein the one or more interception layers intercept calls to the host operating system and system libraries created by the one or more applications.	<p>The Accused Products comprise a system as claimed in claim 3. <i>See</i> claim 3. The Accused Products comprise a system, “wherein the one or more interception layers intercept calls to the host operating system and system libraries created by the one or more applications.”</p> <div data-bbox="659 477 1950 607"> <div>CPROP_INTERCEPT_VER</div> <div>The VirtaMove version that monitors the container properties and system intercepts to ensure the application runs smoothly, just as it would if normally installed directly into the underlying operating system.</div> <div>Read-only</div> </div> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314048600/Container+Properties)</p> <h3>Docking</h3> <p>Docking a container integrates and prepares the container's environment as part of the underlying operating system so that the application is ready to run.</p> <p>When you dock a container, it is registered with VirtaMove and any system definitions that were defined for the container when it was created. System definitions include file associations; in some cases, a file may need to be copied to the operating system.</p> <p>VirtaMove runs a basic sanity test on a container when you attempt to dock the container. Certain conditions on an operating system may interfere with VirtaMove software and an attempt to dock a container, such as an antivirus software or group account permissions. In such a case, the following error message may be displayed when docking fails:</p> <div data-bbox="667 1062 1255 1086"> <p>Failed to intercept OS calls. Sanity test failed. Cannot dock.</p> </div> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311296481/Docking+and+Undocking+Containers)</p>

Claim	US 9,697,038 Claim Term	Analysis			
		<p><u>Dock Intercept</u></p> <p>This is a blocking issue.</p> <p>This section indicated whether the sanity test has passed or not on the destination machine. <u>VirtaMove requires the ability to intercept system calls between the application and the operating system on the destination machine.</u> Certain conditions on an operating system may interfere with VirtaMove software and an attempt to dock a container, such as antivirus software or group account permissions.</p> <p>The following error message may be displayed when Audit fails:</p> <pre>1 Failed to intercept OS calls. Sanity test failed. Cannot dock.</pre> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310804512/Understanding+Audit)</p>			
5	The system according to claim 1 comprising an interception database configured to maintain mapping between host operating system resources inside the one or more isolated environments and outside.	<p>The Accused Products comprise a system as claimed in claim 1. <i>See</i> claim 1. The Accused Products comprise a system, “comprising an interception database configured to maintain mapping between host operating system resources inside the one or more isolated environments and outside.”</p> <p>For example, “[t]he VirtaMove version that monitors the container properties and <i>system intercepts</i> to ensure the application runs smoothly, <i>just as it would if normally installed directly into the underlying operating system.</i>”</p> <table border="1"> <tr> <td data-bbox="659 984 989 1110">CPROP_INTERCEPT_VER</td> <td data-bbox="989 984 1745 1110">The VirtaMove version that monitors the container properties and system intercepts to ensure the application runs smoothly, just as it would if normally installed directly into the underlying operating system.</td> <td data-bbox="1745 984 1948 1110">Read-only</td> </tr> </table> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314048600/Container+Properties)</p>	CPROP_INTERCEPT_VER	The VirtaMove version that monitors the container properties and system intercepts to ensure the application runs smoothly, just as it would if normally installed directly into the underlying operating system.	Read-only
CPROP_INTERCEPT_VER	The VirtaMove version that monitors the container properties and system intercepts to ensure the application runs smoothly, just as it would if normally installed directly into the underlying operating system.	Read-only			

Claim	US 9,697,038 Claim Term	Analysis
		<p>Docking</p> <p>Docking a container integrates and prepares the container's environment as part of the underlying operating system so that the application is ready to run.</p> <p>When you dock a container, it is registered with VirtaMove and any system definitions that were defined for the container when it was created. System definitions include file associations; in some cases, a file may need to be copied to the operating system.</p> <p>VirtaMove runs a basic sanity test on a container when you attempt to dock the container. Certain conditions on an operating system may interfere with VirtaMove software and an attempt to dock a container, such as an antivirus software or group account permissions. In such a case, the following error message may be displayed when docking fails:</p> <p><u>Failed to intercept OS calls. Sanity test failed. Cannot dock.</u></p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311296481/Docking+and+Undocking+Containers)</p> <p><u>Dock Intercept</u></p> <p>This is a blocking issue.</p> <p>This section indicated whether the sanity test has passed or not on the destination machine. <u>VirtaMove requires the ability to intercept system calls between the application and the operating system on the destination machine.</u> Certain conditions on an operating system may interfere with VirtaMove software and an attempt to dock a container, such as antivirus software or group account permissions.</p> <p>The following error message may be displayed when Audit fails:</p> <pre>1 Failed to intercept OS calls. Sanity test failed. Cannot dock.</pre> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310804512/Understanding+Audit)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<h3 data-bbox="667 280 1024 313">Mapping System Drives</h3> <p data-bbox="667 345 1003 394">  Owned by Thomas Farley (Deactivated) *** Last updated: Mar 28, 2022 • 1 min read </p> <p data-bbox="667 418 1843 475">VirtaMove supports the deployment of containers where the source and destination machines have different system drives. However, the destination machine must have a local drive assigned the same drive letter as the source machine's system drive.</p> <p data-bbox="667 500 1843 524">You can use the <code>virtavdrive</code> command to map the system drive from the source machine to a system drive on the destination machine.</p> <p data-bbox="667 548 783 573">For example:</p> <div data-bbox="667 589 1959 1287" style="border: 2px solid red; padding: 10px;"> <p data-bbox="667 597 772 621">Scenario 1:</p> <p data-bbox="667 646 814 670">Source machine</p> <p data-bbox="667 678 804 703">Local Drives: C:</p> <p data-bbox="667 711 814 735">System Drive: C:</p> <p data-bbox="667 760 856 784">Destination machine</p> <p data-bbox="667 792 804 816">Local Drives: E:</p> <p data-bbox="667 824 814 849">System Drive: E:</p> <pre data-bbox="678 881 1161 906">1 virtavdrive c:\appliances\mycontainer move c e</pre> <p data-bbox="667 938 772 963">Scenario 2:</p> <p data-bbox="667 987 814 1011">Source machine</p> <p data-bbox="667 1019 825 1044">Local Drives: C, E:</p> <p data-bbox="667 1052 814 1076">System Drive: E:</p> <p data-bbox="667 1101 856 1125">Destination machine</p> <p data-bbox="667 1133 825 1157">Local Drives: C, E:</p> <p data-bbox="667 1166 814 1190">System Drive: C:</p> <pre data-bbox="678 1222 1150 1247">1 virtavdrive c:\appliances\mycontainer move e c</pre> </div> <p data-bbox="657 1320 1885 1352">(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311263679/Mapping+System+Drives)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<div data-bbox="667 272 1104 310"><h3>Conflicts and Shared Folders</h3></div> <div data-bbox="667 331 1938 391"><p>When you select a shared folder, it's possible that it may conflict with a shared folder on the destination machine. In this case, a warning message will appear in the status bar at the bottom of the Administrative Console.</p></div> <div data-bbox="667 423 1927 1179"><p>The screenshot shows the Administrative Console interface. On the left, a pane titled 'C:\Appliances' contains a table with two columns: 'Appliance' and 'State'. The table has one entry: 'test' with the state 'Undocked'. The main area of the console is divided into two panes. The left pane is titled 'Source Files' and is empty. The right pane is titled 'Source Shared Folders' and contains a list of folders with checkboxes next to them. The folders are: 'folderWithPerm (C:\Documents and Settings\A...', 'deliberately empty (C:\Documents and Settings\...', 'existsonboth (C:\Documents and Settings\Adm...', 'test (C:\Documents and Settings\Buddy\My D...', 'existsDontshare (C:\Documents and Settings\V...', 'test3\$ (C:\Documents and Settings\Administrat...', and 'e DriveFolder (E:\eDriveFolder)'. The checkboxes for 'existsonboth' and 'test' are checked. At the bottom of the console, a status bar displays a red warning message: 'Selected Shared Folders: "test", "existsonboth", already exist on this machine and will not be shared during dock.'</p></div> <div data-bbox="657 1229 1858 1263"><p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311329628/About+Shared+Folders)</p></div>

Using Filters



Owned by Thomas Farley (Deactivated) ***
Mar 02, 2022 • 1 min read

Use VirtaMove filters to exclude specific paths and registry files from a migration.

You can do this:

- when you create a container
- during tether, or
- when you dissolve, to make sure that specific paths are not transferred to the underlying operating system; for example, to exclude VirtaMove executables



Define filters by:


- editing `UserDefinedFilter` and adding nodes where appropriate, or
- creating filters based on the environments or applications you want to migrate


You create filters by adding a Custom filter entity to the `FilterList.xml` file and copying the custom filter into the `<Installation Directory>\Filters\Custom` folder. The syntax should follow existing filters.

Filters

<code><Installation Directory>\Filters\VirtaMoveDissolveExcludes.xml</code>	Contains path and registry filters that will automatically be copied to every container that is created. Useful for excluding OS-dependent information from a migration.
<code><Installation Directory>\Filters\VirtaMoveFilter.xml</code>	This filter excludes all VirtaMove-related products. Useful for excluding VirtaMove Source Agent files.
<code><Installation Directory>\Filters\FilterList.xml</code>	Contains a list of all the filters in a container.
<code><Installation Directory>\Filters\Custom\DotNet.xml</code>	A custom filter used to exclude .NET files and registry keys, so that they maintain their integrity on the underlying operating system.
<code><Installation Directory>\Filters\Custom\LogAndTempFilter.xml</code>	A custom filter used to exclude all log and temporary files, which are usually huge and do not need to be migrated to the new server. Excluding these files speeds up the pre-populate and COTF process.
<code><Installation Directory>\Filters\Custom\UserDefinedFilter.xml</code>	Stores user-defined filters, which will automatically be used by all filters.

Claim	US 9,697,038 Claim Term	Analysis
		<p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311066652/Using+Filters)</p> <p>Dissolve and Shared Folders </p> <p>During Dissolve, shared folders will be set up to their respective dissolved folder locations. A migrated shared folder will be set up during Dissolve only if the location of the associated directory is not being merged with an existing location.</p> <p>If a folder exists at the dissolve location before dissolving, the shared folder will not be set up.</p> <p>See  Migrating Folders, Shared Folders, and Registries for information about how to migrate shared folders.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311329628/About+Shared+Folders)</p> <p>11. Navigate to the Services tab at the top of the Administrative Console. Edit the User Name and Password for a service as appropriate. Note that you are setting a password only; VirtaMove does not validate a password against the original password associated with the source machine. You cannot edit passwords after you click Dock. Service User Names must be in the format domain\uid, where uid is the user identifier. This is a restriction of the Microsoft Win32 functions for working with the Service Control Manager (SCM), which is used by VirtaMove.</p> <ul style="list-style-type: none"> ◦ If you select a service and the service is "Started" on the source machine, tethering will not succeed. Stop the service before tethering by right-clicking the service and then selecting Stop Source Service. ◦ If you select a service and the service already exists on the underlying operating system, the Source Status column will display "CONFLICT". Resolve the conflict and then press F5 to refresh the list. <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311132184/Migrating+an+Application+Using+the+VirtaMove+Administrative+Console)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>Testing Containers</p> <p> Owned by Thomas Farley (Deactivated) *** Last updated: Mar 28, 2022 • 2 min read</p> <p>Table of Contents</p> <ul style="list-style-type: none"> • About Testing Containers <ul style="list-style-type: none"> ◦ Testing Requirements • Testing a Container • What If I Find Problems During Testing? <ul style="list-style-type: none"> ◦ To Delete and Recreate a Container <p>About Testing Containers</p> <p>You can test a container to make sure that the appliance runs correctly. Testing a container may include testing container services, for example. Once you are satisfied that the container runs correctly, you can then move the appliance to the destination machine.</p> <p>You can test an appliance on either the source machine or the destination machine.</p> <p>Testing Requirements</p> <p>If you are testing on the destination machine, make sure that the environment is configured to meet the configuration requirements of the application or service in the appliance. For more information, see your application documentation for system configuration requirements.</p> <p>To avoid service conflicts where appliances with services from the source machine already exist on the destination, VirtaMove will display an error message and prevent the local service from starting. You must resolve this conflict by either removing the service from the destination or removing the service from the container.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314114051/Testing+Containers)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<h2 data-bbox="667 277 1031 326">Using Tether Sync</h2> <div data-bbox="667 363 1129 415">  Owned by Thomas Farley (Deactivated) *** Last updated: Mar 28, 2022 • 4 min read </div> <h3 data-bbox="667 456 888 483">Table of Contents</h3> <ul data-bbox="667 513 1140 743" style="list-style-type: none"> • Update Mode • Reset Mode • What Gets Synced? <ul style="list-style-type: none"> ◦ To Use Tether Sync ◦ To Use Tether Sync Using the CLI • Tether Synch Log <hr data-bbox="667 786 1724 789"/> <p data-bbox="667 841 1682 1114">Tether Sync allows a container to be populated with files and registry keys and then updated later. The Tether Sync feature is useful if you are not able to move some files (e.g., locked databases) right away but instead, need to wait for a service window. In a case like this, Tether Sync allows you to tether as much at the source as possible in advance and then re-connect later during a service window in order to finish the migration. Any new or different files/keys will be re-copied from the source, and files/keys that have been removed from the source will also be removed.</p> <p data-bbox="667 1146 1682 1211">A container must be undocked to apply Tether Sync. An application will not start until the Tether Sync process is complete.</p> <p data-bbox="667 1243 940 1271">Tether Sync modes are:</p> <ul data-bbox="667 1300 793 1373" style="list-style-type: none"> • Update • Reset

Update Mode

Using Update Mode, any files or keys that are newest will be copied. If you changed a file on both the source and destination machines, the newest file will be copied. Changes that have been made to the destination machine may not be preserved in Update Mode. You should therefore keep track of changes that were made to the destination for re-hosting or other reasons because these changes may need to be repeated.

Example Use:

An application has been tethered to a destination machine. Work has been performed on the destination machine, for example testing or re-configuration. Later, when you want to finalize the migration, you re-tether to the original production machine to get any files that have been updated or added. For example, a website installation to which changes have been made. In this case, you would use Update Mode to avoid losing modifications to the destination machine.

Reset Mode

Using Reset Mode, any files or keys that are different between the source and destination machines will be overwritten. Changes that have been made to the container on the destination machine will not be preserved in Reset Mode. You should therefore keep track of changes that were made to the destination for re-hosting or other reasons because these changes will need to be repeated.


Example Use:

An application has been migrated for user acceptance testing (UAT) and has been extensively exercised. It's possible that files have been modified, added, or removed during UAT and these changes are not wanted on the production server. In this case, Reset Mode would return the container to the original state it was in and copy any additional changes from the source machine.

Caution:

VirtaMove does not recommend that you perform a Tether Sync in Reset Mode for an IIS application migration. This mode will undo all changes, including any modifications made by IIS migration scripts. IIS services may not start if you perform a Tether Sync in Reset Mode for an IIS application migration.

Claim	US 9,697,038 Claim Term	Analysis
		<p>What Gets Synced?</p> <p>Tether Sync does not synchronize everything on the source machine to the destination machine. Only paths and keys that have previously been tethered will be checked against the source machine. Specifically, individual files that have been copied will be checked against the source machine as well as paths that were copied in entirety (greedy copied).</p> <p>For example:</p> <p>If you have a complete copy of "<code>\Program Files\SQL Server</code>" and you add directory "<code>\Program Files\SQL Server\some_folder</code>", then a sync operation will copy "<code>some_folder</code>" to the destination machine because the "<code>SQL Server</code>" folder was greedy copied. If you add "<code>\Program Files\some_other_folder</code>", it will not be copied because it is outside of the paths that were greedy copied.</p> <p>To see which paths will be synced, see the <code>tether_greedy_roots.dat</code> file in the container folder. This file contains a list of paths that are meant to be synchronized with the source.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311329719/Using+Tether+Sync)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<h2 data-bbox="659 272 1058 313">Migrating Scheduled Tasks</h2> <div data-bbox="659 345 995 394">  Owned by Thomas Farley (Deactivated) *** Last updated: Mar 25, 2022 • 4 min read </div> <p data-bbox="659 418 1499 451">You can migrate scheduled tasks using the Administrative Console or the CLI using <code>virtatasks</code>.</p> <p data-bbox="659 472 722 496">Notes:</p> <ul data-bbox="659 516 1940 719" style="list-style-type: none"> • If you want to migrate user-defined environment variables along with a scheduled task, select and migrate the user account on the Source Accounts tab. • Docking or dissolving a container installs a task to the underlying operating system. In doing so, VirtaMove maintains the folder structure that was on the source machine. For Windows Server 2008 and later sources, tasks can be nested under layers of folders. If these folders do not exist when a task is being installed, they will be created on the destination machine to store the task. Undocking the container removes the task from the underlying operating system. However, any folders that were created to store the task will not be removed. <p data-bbox="659 768 1919 800">(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311296093/Migrating+Scheduled+Tasks)</p> <h2 data-bbox="659 841 1163 881">Locking or Unlocking a Container</h2> <p data-bbox="659 898 1929 963">You can lock a selected container to make sure that it is not modified during the migration process. Modifications could result in the application not running correctly after the tether process. You can then unlock the container once you're done.</p> <h3 data-bbox="659 1011 911 1044">To Lock a Container</h3> <ol data-bbox="680 1060 1688 1166" style="list-style-type: none"> 1. Select a container, and then select Tools> Lock/Unlock VAA. 2. Enter a password in the first field. Take note or remember this password for when you want to unlock the container. 3. Confirm the password in the second field, then click OK. <h3 data-bbox="659 1222 942 1255">To Unlock a Container</h3> <ol data-bbox="680 1271 1299 1336" style="list-style-type: none"> 1. Select the locked container, and then select Tools> Lock/Unlock VAA. 2. Enter the password you created to lock the container, then click OK.

Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="657 272 2055 345">(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311263823/Managing+Container+Settings#Locking-or-Unlocking-a-Container)</p> <p data-bbox="657 386 1209 427">What Happens if a File Isn't Copied?</p> <p data-bbox="657 443 1934 540">The tethering process will fail to copy a file or any file under a folder from the source machine if, for example, a file is locked on the source machine by a service or a running application or if the connection to the source machine is lost. If this occurs, the tethering process will not mark such a file as "COMPLETE" until the file is physically copied over from the source machine.</p> <p data-bbox="657 557 1927 621">If the application requests a file that was not successfully copied over previously, the tethering process will continue to try to copy the file from the source machine until the copy operation is successful.</p> <p data-bbox="657 670 1845 711">(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311230847/Monitoring+Migration)</p>

Config-on-the-Fly



Owned by Thomas Farley (Deactivated) ***
Last updated: Mar 28, 2022 • 2 min read

Table of Contents

- [Config-on-the-fly Files and Paths](#)
- [Config-on-the-fly on Demand](#)
- [Mapping NICs between Source and Destination](#)
- [COTF Log](#)

Your container may contain configuration information from another system and this information may not be compatible with the current system. For example, you may need to change IP addresses or hostnames. You can use a Config-on-the-fly file (*StandardCOTF.xml*) to update the configuration information so that it works with the current system. You may need to update the settings in the configuration file with information from the current system.

You specify the Config-on-the-fly file using the `virtapedit` command-line utility to update the following property:

```
1 CPROP_CONFIG_FILE
```

Container properties (for example, `CPROP_SRC_NODENAME`) can be used as arguments to the `CPROP_CONFIG_FILE` property.

StandardCOTF.xml is located as follows:

```
1 C:\appliances\<ContainerName>\COTF\StandardCOTF.xml
```

You can have multiple COTF files in the COTF folder. For example, one file could be for replacing IP addresses and another one for replacing hostnames. V-Migrate will load the combined COTF information from the files in the folder.

Config-on-the-fly Files and Paths

When you specify a path to a COTF file, note that VirtaMove supports paths that are relative to the container folder. That is, VirtaMove supports:

```
".\COTF\StandardCOTF.xml"
```

or the absolute full path:


```
"C:\appliance\ContainerName\COTF\StandardCOTF.xml"
```


Claim	US 9,697,038 Claim Term	Analysis
		https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311263613/Config-on-the-Fly

Claim	US 9,697,038 Claim Term	Analysis
		<h3 data-bbox="663 282 1150 323">Creating a Config-on-the-Fly File</h3> <p data-bbox="663 342 1881 431">You can use a Config-on-the-fly file to define how specific file/registry items being tethered to on the source machine will be configured on the destination machine. For example, you may need to replace source machine identification information (hostname, IP address, etc.) with the destination machine ID information. You can use the Config-on-the-fly file to accomplish this task.</p> <p data-bbox="663 459 1860 516">You can specify the Config-on-the-fly file in the Admin Console by clicking the <code>COTF</code> button or using the following property with <code>virtapedit</code> command:</p> <pre data-bbox="663 540 861 573">1 CPROP_CONFIG_FILE</pre> <p data-bbox="663 605 730 630">You can:</p> <ul data-bbox="663 651 1839 789" style="list-style-type: none"> • specify the paths to be configured and the actions to be taken for the particular path • use container properties (for example, <code>CPROP_SRC_NODENAME</code>) as arguments when setting the <code>CPROP_CONFIG_FILE</code> property (for example, <code>virtapedit <path_to_appliance> CPROP_CONFIG_FILE "StandardCOTF.xml CPROP_SRC_NODENAME"</code>) • use wildcards in the <code>TARGET</code> tag and the <code>EXCLUDE</code> tag of the COTF file to exclude specific files from rehosting <p data-bbox="663 813 1581 837">When you create a container, a Config-on-the-fly file is automatically created in the container's COTF folder:</p> <pre data-bbox="663 862 898 894">1 COTF\StandardCOTF.xml</pre> <p data-bbox="663 919 1833 943">When you specify a path to be configured, VirtaMove supports paths that are relative to the container folder. That is, VirtaMove supports:</p> <pre data-bbox="663 967 936 1000">1 ".\COTF\StandardCOTF.xml"</pre> <p data-bbox="663 1032 873 1057">or the absolute full path:</p> <pre data-bbox="663 1081 1167 1114">1 "c:\appliance\ContainerName\COTF\StandardCOTF.xml"</pre> <p data-bbox="663 1146 1503 1170">You can also specify only the file name of the COTF file if the file is in the <code>COTF</code> folder. For example:</p> <pre data-bbox="663 1195 869 1227">1 "StandardCOTF.xml"</pre> <p data-bbox="663 1260 1871 1349">If a container requires a custom Config-on-the-fly file, copy the file into the <code>COTF</code> folder of the container before you compress and move the container. You can then manually update the <code>CPROP_CONFIG_FILE</code> after you uncompress the container to make sure that it is set to the current location of the custom Config-on-the-fly file.</p>


Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="657 272 2018 305">https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311460208/Creating+a+Config-on-the-Fly+File</p> <h3 data-bbox="657 345 1308 386">Showing Custom Scripts When They Run</h3> <p data-bbox="657 407 1545 431">When you create a container, several scripts are created in the Container\Scripts folder as follows:</p> <div data-bbox="657 459 831 841"> <p>AfterDock.cmd</p> <p>AfterStart.cmd</p> <p>AfterStop.cmd</p> <p>AfterUndock.cmd</p> <p>BeforeDock.cmd</p> <p>BeforeStart.cmd</p> <p>BeforeStop.cmd</p> <p>BeforeUndock.cmd</p> </div> <p data-bbox="657 870 1934 927">Script files can be customized to execute commands, call other batch files, make configuration changes, or make modifications to the system environment to support the applications and services in the container.</p> <p data-bbox="657 954 905 979">Do not rename script files.</p> <p data-bbox="657 1006 1749 1031">Custom scripts can be run before and after docking, starting and stopping container services, and undocking containers.</p> <p data-bbox="657 1058 1629 1083">For example, you can edit the BeforeDock.cmd script to add or remove a user or group from the container:</p> <p data-bbox="657 1143 2034 1216">https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311263823/Managing+Container+Settings#Showing-Custom-Scripts-When-They-Run</p>

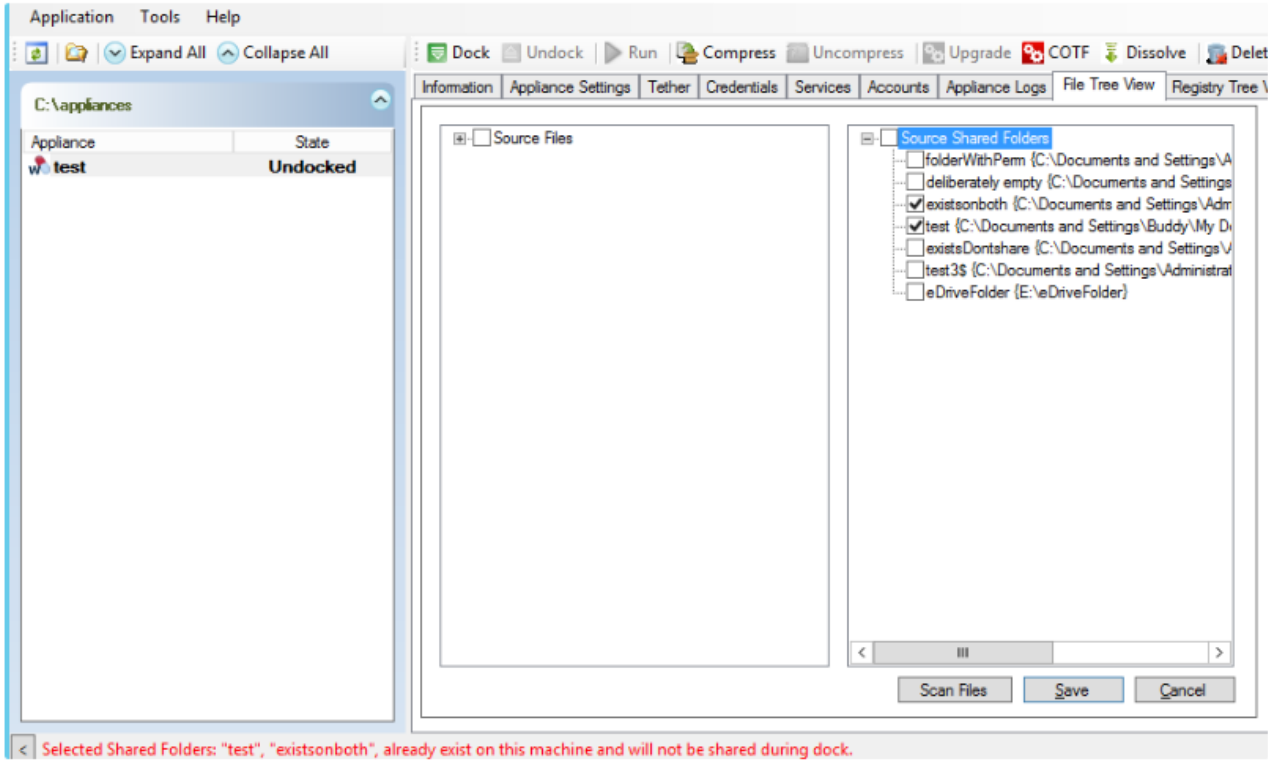
Claim	US 9,697,038 Claim Term	Analysis
		<p>Running Containers</p> <p>Once a container is docked and any required container services are started, you can run a container application.</p> <p>To Run a Container Using the Administrative Console</p> <ol style="list-style-type: none"> 1. Select a container and then click the Dock command button. 2. <u>If the container requires services to run, click the Services tab, and then start any required services that are not in a "Started" status.</u> 3. Click the Run button. <p>Alternatively, you can right-click a docked container and select Run Default App if you want to start the default application for a container.</p> <p>To Run a Container Using the CLI</p> <p>At the command prompt, execute:</p> <pre>1 virtadock <container> 2 3 virtarun <container></pre> <p>For example:</p> <pre>1 virtarun "D:\Appliances\Notepad " "C:\Program Files\Windows\Notepad.exe"</pre> <p>If you specify only the container, the container's startup application will run.</p> <p>Running Multiple Containers</p> <p>The <code>virtarun</code> command uses shared memory, which allows VirtaMove to reduce the amount of memory needed when running multiple containers. For example, if you run 10 containers, this does not mean that 10 times the amount of memory is being used.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/313688121/Running+Containers)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>The Application Migration Process</p> <p> Owned by Thomas Farley (Deactivated) *** Last updated: Mar 25, 2022 • 2 min read</p> <p>Migrating an application involves the following steps:</p> <ol style="list-style-type: none"> 1. Meet requirements for your environment as well as source and destination machines. See https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310706978 Can't find link. 2. Double-click the Administrative Console shortcut icon on your desktop to start Administrative Console. 3. Create a virtual container and connect it to the source machine. 4. Pre-populate the virtual container with applications, services, accounts, components, and files selected from the source machine. 5. Run your virtualized application on the destination machine and exercise the application. See Running and Exercising Your Application. 6. Run VirtaMove Dissolve if you want to remove the migration container from the application and transfer the application to the underlying operating system on the destination machine so that the application will behave as if natively installed. Note that this process cannot be reversed. See Dissolving a Virtual Container. You may wish to keep the application running in the migration container, as required. <p>Pre-Populate</p> <p>Pre-populating a container is part of the VirtaMove application migration process. Pre-population migrates remote products, services, users, and groups without requiring downtime of the application on the source server. <u>Any locked files will not be copied over until the application is fully exercised.</u></p> <p>Pre-populate captures components of the application while the application is up and running on the source server. You can then schedule a maintenance window at a later time for the application. It is during this maintenance window that you would stop and shut down the application before you complete the migration by exercising the application.</p> <p>Pre-populate occurs when you click the Pre-Populate button in the VirtaMove Administrative Console under the Tether tab. A window displays the status of the Pre-Populate process.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310739347/The+Application+Migration+Process)</p>

Claim	US 9,697,038 Claim Term	Analysis			
		<p data-bbox="667 280 1255 321">Starting Applications You Want to Monitor</p> <div data-bbox="667 345 982 394">  Owned by Thomas Farley (Deactivated) *** Mar 03, 2022 • 1 min read </div> <p data-bbox="667 418 1927 508">Once Source Monitor is enabled on the source machine, you can start the applications and services that are to be monitored. Source Monitor will track all the file system and registry paths accessed by these applications and services. The tracked paths are sent in real-time to the Source Agent, which in turn stores them in an SQLite database.</p> <p data-bbox="667 524 720 548">Note:</p> <p data-bbox="667 557 1728 581">If the applications or services were already started before Monitor is enabled, you must restart them after Source Monitor is enabled.</p> <p data-bbox="653 638 2043 711">https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311329129/Starting+Applications+You+Want+to+Monitor</p>			
6	The system according to claim 5, wherein the interception database translates parameters and contexts between a host environment and the one or more isolated environments.	<p data-bbox="653 743 1990 849">The Accused Products comprise a system as claimed in claim 5. <i>See</i> claim 5. The Accused Products comprise a system, “wherein the interception database translates parameters and contexts between a host environment and the one or more isolated environments.”</p> <p data-bbox="653 881 2043 995">For example, “[t]he VirtaMove version that monitors the container properties and <i>system intercepts</i> to ensure the application runs smoothly, <i>just as it would if normally installed directly into the underlying operating system.</i>”</p> <table border="1" data-bbox="657 1023 1948 1149"> <tr> <td data-bbox="667 1031 1003 1068">CPROP_INTERCEPT_VER</td><td data-bbox="1014 1031 1728 1141">The VirtaMove version that monitors the container properties and system intercepts to ensure the application runs smoothly, just as it would if normally installed directly into the underlying operating system.</td><td data-bbox="1738 1031 1938 1068">Read-only</td></tr> </table> <p data-bbox="653 1190 1833 1222">https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314048600/Container+Properties</p>	CPROP_INTERCEPT_VER	The VirtaMove version that monitors the container properties and system intercepts to ensure the application runs smoothly, just as it would if normally installed directly into the underlying operating system.	Read-only
CPROP_INTERCEPT_VER	The VirtaMove version that monitors the container properties and system intercepts to ensure the application runs smoothly, just as it would if normally installed directly into the underlying operating system.	Read-only			

Claim	US 9,697,038 Claim Term	Analysis
		<p>Docking</p> <p>Docking a container integrates and prepares the container's environment as part of the underlying operating system so that the application is ready to run.</p> <p>When you dock a container, it is registered with VirtaMove and any system definitions that were defined for the container when it was created. System definitions include file associations; in some cases, a file may need to be copied to the operating system.</p> <p>VirtaMove runs a basic sanity test on a container when you attempt to dock the container. Certain conditions on an operating system may interfere with VirtaMove software and an attempt to dock a container, such as an antivirus software or group account permissions. In such a case, the following error message may be displayed when docking fails:</p> <pre>Failed to intercept OS calls. Sanity test failed. Cannot dock.</pre> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311296481/Docking+and+Undocking+Containers)</p> <p><u>Dock Intercept</u></p> <p>This is a blocking issue.</p> <p>This section indicated whether the sanity test has passed or not on the destination machine. <u>VirtaMove requires the ability to intercept system calls between the application and the operating system on the destination machine.</u> Certain conditions on an operating system may interfere with VirtaMove software and an attempt to dock a container, such as antivirus software or group account permissions.</p> <p>The following error message may be displayed when Audit fails:</p> <pre>1 Failed to intercept OS calls. Sanity test failed. Cannot dock.</pre> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310804512/Understanding+Audit)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<h3 data-bbox="667 277 1020 313">Mapping System Drives</h3> <p data-bbox="667 345 1003 391">  Owned by Thomas Farley (Deactivated) *** Last updated: Mar 28, 2022 • 1 min read </p> <p data-bbox="667 418 1837 477">VirtaMove supports the deployment of containers where the source and destination machines have different system drives. However, the destination machine must have a local drive assigned the same drive letter as the source machine's system drive.</p> <p data-bbox="667 500 1845 526">You can use the <code>virtavdrive</code> command to map the system drive from the source machine to a system drive on the destination machine.</p> <p data-bbox="667 548 783 574">For example:</p> <div data-bbox="667 586 1955 1284" style="border: 2px solid red; padding: 10px;"> <p data-bbox="667 597 772 623">Scenario 1:</p> <p data-bbox="667 646 810 672">Source machine</p> <p data-bbox="667 678 802 704">Local Drives: C:</p> <p data-bbox="667 711 810 737">System Drive: C:</p> <p data-bbox="667 760 848 786">Destination machine</p> <p data-bbox="667 792 802 818">Local Drives: E:</p> <p data-bbox="667 824 810 850">System Drive: E:</p> <pre data-bbox="678 878 1155 904">1 virtavdrive c:\appliances\mycontainer move c e</pre> <p data-bbox="667 938 772 964">Scenario 2:</p> <p data-bbox="667 987 810 1013">Source machine</p> <p data-bbox="667 1019 827 1045">Local Drives: C:, E:</p> <p data-bbox="667 1052 810 1078">System Drive: E:</p> <p data-bbox="667 1101 848 1127">Destination machine</p> <p data-bbox="667 1133 827 1159">Local Drives: C:, E:</p> <p data-bbox="667 1166 810 1192">System Drive: C:</p> <pre data-bbox="678 1219 1144 1245">1 virtavdrive c:\appliances\mycontainer move e c</pre> </div> <p data-bbox="657 1321 1887 1354">(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311263679/Mapping+System+Drives)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<div data-bbox="667 272 1104 310"><h3>Conflicts and Shared Folders</h3></div> <div data-bbox="667 331 1938 391"><p>When you select a shared folder, it's possible that it may conflict with a shared folder on the destination machine. In this case, a warning message will appear in the status bar at the bottom of the Administrative Console.</p></div> <div data-bbox="667 423 1927 1179">The screenshot shows the 'Administrative Console' application window. On the left, a tree view under 'C:\Appliances' shows an appliance named 'test' with a status of 'Undocked'. The main pane is divided into two sections: 'Source Files' and 'Source Shared Folders'. The 'Source Shared Folders' section contains a list of folders with checkboxes: 'folderWithPerm (C:\Documents and Settings\A...', 'deliberately empty (C:\Documents and Settings\Adm...', 'existsonboth (C:\Documents and Settings\Buddy\My D...', 'test (C:\Documents and Settings\Buddy\My D...', 'existsDontshare (C:\Documents and Settings\V...', 'test3\$ (C:\Documents and Settings\Administrat...', and 'e DriveFolder (E:\eDriveFolder)'. The 'test' and 'existsonboth' folders are checked. At the bottom of the window, a red status bar displays the message: 'Selected Shared Folders: "test", "existsonboth", already exist on this machine and will not be shared during dock.' The application menu bar includes 'Application', 'Tools', and 'Help'. The toolbar contains icons for 'Expand All', 'Collapse All', 'Dock', 'Undock', 'Run', 'Compress', 'Uncompress', 'Upgrade', 'COTF', 'Dissolve', and 'Delete'. The main pane also has tabs for 'Information', 'Appliance Settings', 'Tether', 'Credentials', 'Services', 'Accounts', 'Appliance Logs', 'File Tree View', and 'Registry Tree View'.</div> <div data-bbox="657 1230 1858 1263"><p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311329628/About+Shared+Folders)</p></div>

Using Filters



Owned by Thomas Farley (Deactivated) ***
Mar 02, 2022 • 1 min read

Use VirtaMove filters to exclude specific paths and registry files from a migration.

You can do this:

- when you create a container
- during tether, or
- when you dissolve, to make sure that specific paths are not transferred to the underlying operating system; for example, to exclude VirtaMove executables


Define filters by:


- editing `UserDefinedFilter` and adding nodes where appropriate, or
- creating filters based on the environments or applications you want to migrate


You create filters by adding a Custom filter entity to the `FilterList.xml` file and copying the custom filter into the `<Installation Directory>\Filters\Custom` folder. The syntax should follow existing filters.

Filters

<code><Installation Directory>\Filters\VirtaMoveDissolveExcludes.xml</code>	Contains path and registry filters that will automatically be copied to every container that is created. Useful for excluding OS-dependent information from a migration.
<code><Installation Directory>\Filters\VirtaMoveFilter.xml</code>	This filter excludes all VirtaMove-related products. Useful for excluding VirtaMove Source Agent files.
<code><Installation Directory>\Filters\FilterList.xml</code>	Contains a list of all the filters in a container.
<code><Installation Directory>\Filters\Custom\DotNet.xml</code>	A custom filter used to exclude .NET files and registry keys, so that they maintain their integrity on the underlying operating system.
<code><Installation Directory>\Filters\Custom\LogAndTempFilter.xml</code>	A custom filter used to exclude all log and temporary files, which are usually huge and do not need to be migrated to the new server. Excluding these files speeds up the pre-populate and COTF process.
<code><Installation Directory>\Filters\Custom\UserDefinedFilter.xml</code>	Stores user-defined filters, which will automatically be used by all filters.

Claim	US 9,697,038 Claim Term	Analysis
		<p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311066652/Using+Filters)</p> <h3 data-bbox="667 347 1129 380">Dissolve and Shared Folders </h3> <p data-bbox="667 406 1948 464">During Dissolve, shared folders will be set up to their respective dissolved folder locations. A migrated shared folder will be set up during Dissolve only if the location of the associated directory is not being merged with an existing location.</p> <p data-bbox="667 490 1493 516">If a folder exists at the dissolve location before dissolving, the shared folder will not be set up.</p> <p data-bbox="667 587 1640 613">See Migrating Folders, Shared Folders, and Registries for information about how to migrate shared folders.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311329628/About+Shared+Folders)</p> <p data-bbox="667 750 1948 873">11. Navigate to the Services tab at the top of the Administrative Console. Edit the User Name and Password for a service as appropriate. Note that you are setting a password only; VirtaMove does not validate a password against the original password associated with the source machine. You cannot edit passwords after you click Dock. Service User Names must be in the format domain\uid, where uid is the user identifier. This is a restriction of the Microsoft Win32 functions for working with the Service Control Manager (SCM), which is used by VirtaMove.</p> <ul data-bbox="699 886 1948 1019" style="list-style-type: none"> ◦ If you select a service and the service is "Started" on the source machine, tethering will not succeed. Stop the service before tethering by right-clicking the service and then selecting Stop Source Service. ◦ If you select a service and the service already exists on the underlying operating system, the Source Status column will display "CONFLICT". Resolve the conflict and then press F5 to refresh the list. <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311132184/Migrating+an+Application+Using+the+VirtaMove+Administrative+Console)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>Testing Containers</p> <p> Owned by Thomas Farley (Deactivated) *** Last updated: Mar 28, 2022 • 2 min read</p> <p>Table of Contents</p> <ul style="list-style-type: none"> • About Testing Containers <ul style="list-style-type: none"> ◦ Testing Requirements • Testing a Container • What If I Find Problems During Testing? <ul style="list-style-type: none"> ◦ To Delete and Recreate a Container <p>About Testing Containers</p> <p>You can test a container to make sure that the appliance runs correctly. Testing a container may include testing container services, for example. Once you are satisfied that the container runs correctly, you can then move the appliance to the destination machine.</p> <p>You can test an appliance on either the source machine or the destination machine.</p> <p>Testing Requirements</p> <p>If you are testing on the destination machine, make sure that the environment is configured to meet the configuration requirements of the application or service in the appliance. For more information, see your application documentation for system configuration requirements.</p> <p>To avoid service conflicts where appliances with services from the source machine already exist on the destination, VirtaMove will display an error message and prevent the local service from starting. You must resolve this conflict by either removing the service from the destination or removing the service from the container.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314114051/Testing+Containers)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<h2 data-bbox="667 280 1012 329">Using Tether Sync</h2> <div data-bbox="667 370 1108 418">  Owned by Thomas Farley (Deactivated) *** Last updated: Mar 28, 2022 • 4 min read </div> <h3 data-bbox="667 459 877 483">Table of Contents</h3> <ul data-bbox="667 516 1117 743" style="list-style-type: none"> • Update Mode • Reset Mode • What Gets Synced? <ul style="list-style-type: none"> ◦ To Use Tether Sync ◦ To Use Tether Sync Using the CLI • Tether Synch Log <hr data-bbox="667 784 1675 792"/> <p data-bbox="667 841 1638 1117">Tether Sync allows a container to be populated with files and registry keys and then updated later. The Tether Sync feature is useful if you are not able to move some files (e.g., locked databases) right away but instead, need to wait for a service window. In a case like this, Tether Sync allows you to tether as much at the source as possible in advance and then re-connect later during a service window in order to finish the migration. Any new or different files/keys will be re-copied from the source, and files/keys that have been removed from the source will also be removed.</p> <p data-bbox="667 1149 1633 1214">A container must be undocked to apply Tether Sync. An application will not start until the Tether Sync process is complete.</p> <p data-bbox="667 1247 928 1271">Tether Sync modes are:</p> <ul data-bbox="667 1304 793 1377" style="list-style-type: none"> • Update • Reset

Update Mode

Using Update Mode, any files or keys that are newest will be copied. If you changed a file on both the source and destination machines, the newest file will be copied. Changes that have been made to the destination machine may not be preserved in Update Mode. You should therefore keep track of changes that were made to the destination for re-hosting or other reasons because these changes may need to be repeated.

Example Use:

An application has been tethered to a destination machine. Work has been performed on the destination machine, for example testing or re-configuration. Later, when you want to finalize the migration, you re-tether to the original production machine to get any files that have been updated or added. For example, a website installation to which changes have been made. In this case, you would use Update Mode to avoid losing modifications to the destination machine.

Reset Mode

Using Reset Mode, any files or keys that are different between the source and destination machines will be overwritten. Changes that have been made to the container on the destination machine will not be preserved in Reset Mode. You should therefore keep track of changes that were made to the destination for re-hosting or other reasons because these changes will need to be repeated.


Example Use:

An application has been migrated for user acceptance testing (UAT) and has been extensively exercised. It's possible that files have been modified, added, or removed during UAT and these changes are not wanted on the production server. In this case, Reset Mode would return the container to the original state it was in and copy any additional changes from the source machine.

Caution:

VirtaMove does not recommend that you perform a Tether Sync in Reset Mode for an IIS application migration. This mode will undo all changes, including any modifications made by IIS migration scripts. IIS services may not start if you perform a Tether Sync in Reset Mode for an IIS application migration.

Claim	US 9,697,038 Claim Term	Analysis
		<p>What Gets Synced?</p> <p>Tether Sync does not synchronize everything on the source machine to the destination machine. Only paths and keys that have previously been tethered will be checked against the source machine. Specifically, individual files that have been copied will be checked against the source machine as well as paths that were copied in entirety (greedy copied).</p> <p>For example:</p> <p>If you have a complete copy of "<code>\Program Files\SQL Server</code>" and you add directory "<code>\Program Files\SQL Server\some_folder</code>", then a sync operation will copy "<code>some_folder</code>" to the destination machine because the "<code>SQL Server</code>" folder was greedy copied. If you add "<code>\Program Files\some_other_folder</code>", it will not be copied because it is outside of the paths that were greedy copied.</p> <p>To see which paths will be synced, see the <code>tether_greedy_roots.dat</code> file in the container folder. This file contains a list of paths that are meant to be synchronized with the source.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311329719/Using+Tether+Sync)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<h2 data-bbox="659 272 1058 313">Migrating Scheduled Tasks</h2> <div data-bbox="659 345 995 394">  Owned by Thomas Farley (Deactivated) *** Last updated: Mar 25, 2022 • 4 min read </div> <p data-bbox="659 418 1499 451">You can migrate scheduled tasks using the Administrative Console or the CLI using <code>virtatasks</code>.</p> <p data-bbox="659 472 722 496">Notes:</p> <ul data-bbox="659 516 1940 719" style="list-style-type: none"> • If you want to migrate user-defined environment variables along with a scheduled task, select and migrate the user account on the Source Accounts tab. • Docking or dissolving a container installs a task to the underlying operating system. In doing so, VirtaMove maintains the folder structure that was on the source machine. For Windows Server 2008 and later sources, tasks can be nested under layers of folders. If these folders do not exist when a task is being installed, they will be created on the destination machine to store the task. Undocking the container removes the task from the underlying operating system. However, any folders that were created to store the task will not be removed. <p data-bbox="659 768 1919 800">(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311296093/Migrating+Scheduled+Tasks)</p> <h2 data-bbox="659 841 1163 881">Locking or Unlocking a Container</h2> <p data-bbox="659 898 1929 954">You can lock a selected container to make sure that it is not modified during the migration process. Modifications could result in the application not running correctly after the tether process. You can then unlock the container once you're done.</p> <h3 data-bbox="659 1011 911 1044">To Lock a Container</h3> <ol data-bbox="680 1060 1688 1166" style="list-style-type: none"> 1. Select a container, and then select Tools> Lock/Unlock VAA. 2. Enter a password in the first field. Take note or remember this password for when you want to unlock the container. 3. Confirm the password in the second field, then click OK. <h3 data-bbox="659 1222 942 1255">To Unlock a Container</h3> <ol data-bbox="680 1271 1299 1336" style="list-style-type: none"> 1. Select the locked container, and then select Tools> Lock/Unlock VAA. 2. Enter the password you created to lock the container, then click OK.

Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="657 272 2055 345">(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311263823/Managing+Container+Settings#Locking-or-Unlocking-a-Container)</p> <p data-bbox="657 386 1209 427">What Happens if a File Isn't Copied?</p> <p data-bbox="657 443 1934 540">The tethering process will fail to copy a file or any file under a folder from the source machine if, for example, a file is locked on the source machine by a service or a running application or if the connection to the source machine is lost. If this occurs, the tethering process will not mark such a file as "COMPLETE" until the file is physically copied over from the source machine.</p> <p data-bbox="657 557 1927 621">If the application requests a file that was not successfully copied over previously, the tethering process will continue to try to copy the file from the source machine until the copy operation is successful.</p> <p data-bbox="657 670 1845 711">(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311230847/Monitoring+Migration)</p>

Config-on-the-Fly



Owned by Thomas Farley (Deactivated) ***
Last updated: Mar 28, 2022 • 2 min read

Table of Contents

- [Config-on-the-fly Files and Paths](#)
- [Config-on-the-fly on Demand](#)
- [Mapping NICs between Source and Destination](#)
- [COTF Log](#)

Your container may contain configuration information from another system and this information may not be compatible with the current system. For example, you may need to change IP addresses or hostnames. You can use a Config-on-the-fly file (*StandardCOTF.xml*) to update the configuration information so that it works with the current system. You may need to update the settings in the configuration file with information from the current system.

You specify the Config-on-the-fly file using the [virtapedit](#) command-line utility to update the following property:

```
1 CPROP_CONFIG_FILE
```

Container properties (for example, `CPROP_SRC_NODENAME`) can be used as arguments to the `CPROP_CONFIG_FILE` property.

StandardCOTF.xml is located as follows:

```
1 C:\appliances\<ContainerName>\COTF\StandardCOTF.xml
```

You can have multiple COTF files in the COTF folder. For example, one file could be for replacing IP addresses and another one for replacing hostnames. V-Migrate will load the combined COTF information from the files in the folder.

Config-on-the-fly Files and Paths

When you specify a path to a COTF file, note that VirtaMove supports paths that are relative to the container folder. That is, VirtaMove supports:

```
".\COTF\StandardCOTF.xml"
```

or the absolute full path:


```
"C:\appliance\ContainerName\COTF\StandardCOTF.xml"
```


Claim	US 9,697,038 Claim Term	Analysis
		https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311263613/Config-on-the-Fly

Claim	US 9,697,038 Claim Term	Analysis
		<h3 data-bbox="663 289 1150 321">Creating a Config-on-the-Fly File</h3> <p data-bbox="663 345 1881 435">You can use a Config-on-the-fly file to define how specific file/registry items being tethered to on the source machine will be configured on the destination machine. For example, you may need to replace source machine identification information (hostname, IP address, etc.) with the destination machine ID information. You can use the Config-on-the-fly file to accomplish this task.</p> <p data-bbox="663 459 1860 516">You can specify the Config-on-the-fly file in the Admin Console by clicking the <code>COTF</code> button or using the following property with <code>virtapedit</code> command:</p> <pre data-bbox="663 540 863 573">1 CPROP_CONFIG_FILE</pre> <p data-bbox="663 605 730 630">You can:</p> <ul data-bbox="663 654 1839 792" style="list-style-type: none"> • specify the paths to be configured and the actions to be taken for the particular path • use container properties (for example, <code>CPROP_SRC_NODENAME</code>) as arguments when setting the <code>CPROP_CONFIG_FILE</code> property (for example, <code>virtapedit <path_to_appliance> CPROP_CONFIG_FILE "StandardCOTF.xml CPROP_SRC_NODENAME"</code>) • use wildcards in the <code>TARGET</code> tag and the <code>EXCLUDE</code> tag of the COTF file to exclude specific files from rehosting <p data-bbox="663 816 1581 841">When you create a container, a Config-on-the-fly file is automatically created in the container's COTF folder:</p> <pre data-bbox="663 865 898 898">1 COTF\StandardCOTF.xml</pre> <p data-bbox="663 922 1833 946">When you specify a path to be configured, VirtaMove supports paths that are relative to the container folder. That is, VirtaMove supports:</p> <pre data-bbox="663 979 936 1011">1 ".\COTF\StandardCOTF.xml"</pre> <p data-bbox="663 1036 873 1060">or the absolute full path:</p> <pre data-bbox="663 1092 1171 1125">1 "c:\appliance\ContainerName\COTF\StandardCOTF.xml"</pre> <p data-bbox="663 1149 1503 1174">You can also specify only the file name of the COTF file if the file is in the <code>COTF</code> folder. For example:</p> <pre data-bbox="663 1206 867 1239">1 "StandardCOTF.xml"</pre> <p data-bbox="663 1263 1871 1352">If a container requires a custom Config-on-the-fly file, copy the file into the <code>COTF</code> folder of the container before you compress and move the container. You can then manually update the <code>CPROP_CONFIG_FILE</code> after you uncompress the container to make sure that it is set to the current location of the custom Config-on-the-fly file.</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="657 272 2022 305">https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311460208/Creating+a+Config-on-the-Fly+File</p> <h3 data-bbox="657 345 1308 386">Showing Custom Scripts When They Run</h3> <p data-bbox="657 407 1545 431">When you create a container, several scripts are created in the Container\Scripts folder as follows:</p> <div data-bbox="657 459 831 841"> <p data-bbox="657 459 804 483">AfterDock.cmd</p> <p data-bbox="657 513 814 537">AfterStart.cmd</p> <p data-bbox="657 566 804 591">AfterStop.cmd</p> <p data-bbox="657 620 825 644">AfterUndock.cmd</p> <p data-bbox="657 673 814 698">BeforeDock.cmd</p> <p data-bbox="657 727 825 751">BeforeStart.cmd</p> <p data-bbox="657 781 814 805">BeforeStop.cmd</p> <p data-bbox="657 834 835 859">BeforeUndock.cmd</p> </div> <p data-bbox="657 870 1934 927">Script files can be customized to execute commands, call other batch files, make configuration changes, or make modifications to the system environment to support the applications and services in the container.</p> <p data-bbox="657 954 905 979">Do not rename script files.</p> <p data-bbox="657 1006 1749 1031">Custom scripts can be run before and after docking, starting and stopping container services, and undocking containers.</p> <p data-bbox="657 1058 1629 1083">For example, you can edit the BeforeDock.cmd script to add or remove a user or group from the container:</p> <p data-bbox="657 1143 2039 1216">https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311263823/Managing+Container+Settings#Showing-Custom-Scripts-When-They-Run</p>




Claim	US 9,697,038 Claim Term	Analysis
		<p>Running Containers</p> <p>Once a container is docked and any required container services are started, you can run a container application.</p> <p>To Run a Container Using the Administrative Console</p> <ol style="list-style-type: none"> 1. Select a container and then click the Dock command button. 2. <u>If the container requires services to run, click the Services tab, and then start any required services that are not in a "Started" status.</u> 3. Click the Run button. <p>Alternatively, you can right-click a docked container and select Run Default App if you want to start the default application for a container.</p> <p>To Run a Container Using the CLI</p> <p>At the command prompt, execute:</p> <pre>1 virtadock <container> 2 3 virtarun <container></pre> <p>For example:</p> <pre>1 virtarun "D:\Appliances\Notepad " "C:\Program Files\Windows\Notepad.exe"</pre> <p>If you specify only the container, the container's startup application will run.</p> <p>Running Multiple Containers</p> <p>The <code>virtarun</code> command uses shared memory, which allows VirtaMove to reduce the amount of memory needed when running multiple containers. For example, if you run 10 containers, this does not mean that 10 times the amount of memory is being used.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/313688121/Running+Containers)</p>


Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="667 272 1176 313">The Application Migration Process</p> <p data-bbox="667 345 997 389">  Owned by Thomas Farley (Deactivated) *** Last updated: Mar 25, 2022 • 2 min read </p> <p data-bbox="667 418 1123 443">Migrating an application involves the following steps:</p> <ol data-bbox="678 467 1932 784" style="list-style-type: none"> 1. Meet requirements for your environment as well as source and destination machines. See https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310706978 Can't find link. 2. Double-click the Administrative Console shortcut icon on your desktop to start Administrative Console. 3. Create a virtual container and connect it to the source machine. 4. Pre-populate the virtual container with applications, services, accounts, components, and files selected from the source machine. 5. Run your virtualized application on the destination machine and exercise the application. See Running and Exercising Your Application. 6. Run VirtaMove Dissolve if you want to remove the migration container from the application and transfer the application to the underlying operating system on the destination machine so that the application will behave as if natively installed. Note that this process cannot be reversed. See Dissolving a Virtual Container. You may wish to keep the application running in the migration container, as required. <p data-bbox="667 849 861 889">Pre-Populate</p> <p data-bbox="667 906 1900 995">Pre-populating a container is part of the VirtaMove application migration process. Pre-population migrates remote products, services, users, and groups without requiring downtime of the application on the source server. <u>Any locked files will not be copied over until the application is fully exercised.</u></p> <p data-bbox="667 1019 1900 1109">Pre-populate captures components of the application while the application is up and running on the source server. You can then schedule a maintenance window at a later time for the application. It is during this maintenance window that you would stop and shut down the application before you complete the migration by exercising the application.</p> <p data-bbox="667 1133 1927 1190">Pre-populate occurs when you click the Pre-Populate button in the VirtaMove Administrative Console under the Tether tab. A window displays the status of the Pre-Populate process.</p> <p data-bbox="657 1239 2037 1271"><u>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310739347/The+Application+Migration+Process)</u></p>

Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="667 277 1255 318">Starting Applications You Want to Monitor</p> <div data-bbox="667 342 982 386"> Owned by Thomas Farley (Deactivated) *** Mar 03, 2022 • 1 min read</div> <p data-bbox="667 415 1927 500">Once Source Monitor is enabled on the source machine, you can start the applications and services that are to be monitored. Source Monitor will track all the file system and registry paths accessed by these applications and services. The tracked paths are sent in real-time to the Source Agent, which in turn stores them in an SQLite database.</p> <p data-bbox="667 524 720 545">Note:</p> <p data-bbox="667 557 1728 578">If the applications or services were already started before Monitor is enabled, you must restart them after Source Monitor is enabled.</p> <p data-bbox="657 634 2032 708"><u>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311329129/Starting+Applications+You+Want+to+Monitor)</u></p>

Claim	US 9,697,038 Claim Term	Analysis												
		<div><div><div><div><div><div></div><div>TF</div></div></div><div><div><div>Owned by Thomas Farley (Deactivated) ···</div><div>Mar 24, 2022 · 1 min read</div></div></div></div></div><div><p>This command runs a container application. Administrator privileges are not required.</p></div><div><div>Syntax</div><div><div>1</div><div><code>virtarun [/S] [/C <path>] Appliance ["application"] ["arguments"]</code></div></div></div><div><div>Options</div><table><tr><th>Option</th><th>Description</th></tr><tr><td>/S</td><td>Silent mode. Suppresses dialog box pop-up warning/errors so that batch scripts don't fail.</td></tr><tr><td>Appliance</td><td>The full path of the container.</td></tr><tr><td>application</td><td>The full path of the application to run. If an application is not specified, the application specified in the Startup property will run.</td></tr><tr><td>arguments</td><td>Argument parameters for <code>application</code>.</td></tr><tr><td>/C</td><td>Change to a new working directory at launch.</td></tr></table></div><div><p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314212693/virtarun)</p></div></div>	Option	Description	/S	Silent mode. Suppresses dialog box pop-up warning/errors so that batch scripts don't fail.	Appliance	The full path of the container.	application	The full path of the application to run. If an application is not specified, the application specified in the Startup property will run.	arguments	Argument parameters for <code>application</code> .	/C	Change to a new working directory at launch.
Option	Description													
/S	Silent mode. Suppresses dialog box pop-up warning/errors so that batch scripts don't fail.													
Appliance	The full path of the container.													
application	The full path of the application to run. If an application is not specified, the application specified in the Startup property will run.													
arguments	Argument parameters for <code>application</code> .													
/C	Change to a new working directory at launch.													
7	The system according to claim 1, wherein the one or more isolated environments are stored on a local storage.	<p>The Accused Products comprise a system as claimed in claim 1. <i>See</i> claim 1. The Accused Products comprise a system, “wherein one or more isolated environments are stored on a local storage.”</p> <p>For example, once containers are migrated onto the destination machine, the Accused Products perform “docking,” which “integrates and prepare the container’s environment as <i>part of the underlying operating system</i> so that the application is ready to run. When you dock a container, <i>it is registered with VirtaMove and any system definitions that were defined for the container when it was created. System definitions include file associations; in some cases, a file may need to be copied to the operating system.</i>”</p>												


Claim	US 9,697,038 Claim Term	Analysis
		<p>Docking</p> <p>Docking a container integrates and prepares the container's environment as part of the underlying operating system so that the application is ready to run.</p> <p>When you dock a container, it is registered with VirtaMove and any system definitions that were defined for the container when it was created. System definitions include file associations; in some cases, a file may need to be copied to the operating system.</p> <p>VirtaMove runs a basic sanity test on a container when you attempt to dock the container. Certain conditions on an operating system may interfere with VirtaMove software and an attempt to dock a container, such as an antivirus software or group account permissions. In such a case, the following error message may be displayed when docking fails:</p> <p><code>Failed to intercept OS calls. Sanity test failed. Cannot dock.</code></p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311296481/Docking+and+Undocking+Containers)</p> <p>Indeed, storage capacity on the destination machine is a relevant consideration when migrating application containers.</p>

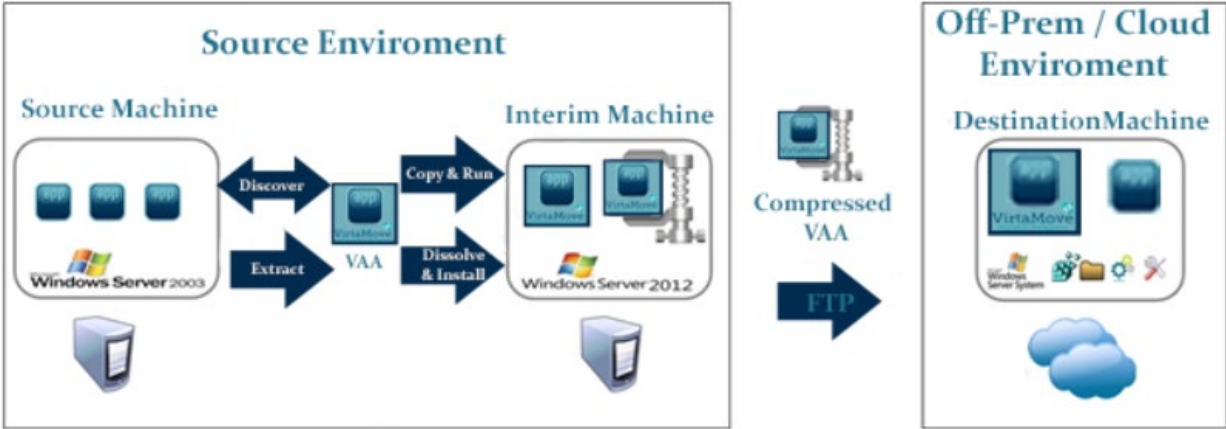
Claim	US 9,697,038 Claim Term	Analysis																
		<div>The following table lists the elements in the Destination Details window.</div> <table><tr><th>Item</th><th>Description</th></tr><tr><td>Destination System Information card</td><td>Displays information about the system of the destination:<ul style="list-style-type: none">• IP Address• OS• Any group assigned to the source• CPU• Source. You can assign a destination to a source by clicking Assign.• Memory</td></tr><tr><td>Storage Profile card</td><td>Displays the number of system disks and storage disks, and the amount of free disk space. Click the toggle icon in the top right of the panel to change the view.</td></tr><tr><td>Migrations Complete card</td><td>Displays the number of applications migrated to this destination.</td></tr><tr><td>Migrations In-Progress card</td><td>Displays the number of migrations that are in progress for this destination, and the last operation.</td></tr><tr><td>Required Storage Profile to Dissolve VAA card</td><td>Displays the storage that is required to dissolve the container, if this information is available.</td></tr><tr><td>Filter</td><td>Lets you filter the list of destinations by OS, assigned group, or IP/hostname.</td></tr><tr><td></td><td>These icons let you perform tasks for the destination. From left to right:<ul style="list-style-type: none">• View services on the destination• View user and group accounts associated with the destination• View patches applied to the destination</td></tr></table> <div>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314868022/Viewing+Destination+Details)</div>	Item	Description	Destination System Information card	Displays information about the system of the destination: <ul style="list-style-type: none">• IP Address• OS• Any group assigned to the source• CPU• Source. You can assign a destination to a source by clicking Assign.• Memory	Storage Profile card	Displays the number of system disks and storage disks, and the amount of free disk space. Click the toggle icon in the top right of the panel to change the view.	Migrations Complete card	Displays the number of applications migrated to this destination.	Migrations In-Progress card	Displays the number of migrations that are in progress for this destination, and the last operation.	Required Storage Profile to Dissolve VAA card	Displays the storage that is required to dissolve the container, if this information is available.	Filter	Lets you filter the list of destinations by OS, assigned group, or IP/hostname.		These icons let you perform tasks for the destination. From left to right: <ul style="list-style-type: none">• View services on the destination• View user and group accounts associated with the destination• View patches applied to the destination
Item	Description																	
Destination System Information card	Displays information about the system of the destination: <ul style="list-style-type: none">• IP Address• OS• Any group assigned to the source• CPU• Source. You can assign a destination to a source by clicking Assign.• Memory																	
Storage Profile card	Displays the number of system disks and storage disks, and the amount of free disk space. Click the toggle icon in the top right of the panel to change the view.																	
Migrations Complete card	Displays the number of applications migrated to this destination.																	
Migrations In-Progress card	Displays the number of migrations that are in progress for this destination, and the last operation.																	
Required Storage Profile to Dissolve VAA card	Displays the storage that is required to dissolve the container, if this information is available.																	
Filter	Lets you filter the list of destinations by OS, assigned group, or IP/hostname.																	
	These icons let you perform tasks for the destination. From left to right: <ul style="list-style-type: none">• View services on the destination• View user and group accounts associated with the destination• View patches applied to the destination																	

Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="678 280 1167 318">Discovering Capacity Requirements</p> <p data-bbox="678 345 989 386">  Owned by Thomas Farley (Deactivated) *** Mar 29, 2022 • 1 min read </p> <p data-bbox="678 418 1913 467">The Capacity Requirements window displays a summary of capacity information for discovered sources so you can plan appropriately for capacity required on destination servers.</p> <p data-bbox="678 492 1377 516">Click Discover>Capacity Requirements. The Capacity Requirements page is displayed.</p> <p data-bbox="678 540 1927 589">To view recommended sizing options for a dissolve-ready migration to the destination, click the plus icon for a selected source. To hide the options, click the icon again.</p> <p data-bbox="657 646 2039 678">(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314671412/Discovering+Capacity+Requirements)</p>
8	The system according to claim 1, wherein the one or more isolated environments are stored on a networked storage and the one or more applications are delivered over a network.	<p data-bbox="657 719 2018 816">The Accused Products comprise a system as claimed in claim 1. <i>See</i> claim 1. The Accused Products comprise a system, “wherein one or more isolated environments are stored on a networked storage and the one or more applications are delivered over a network.”</p> <p data-bbox="657 857 1885 889">For example, VirtaMove is able to transfer container files (“CAP files”) to a Cloud environment.</p>


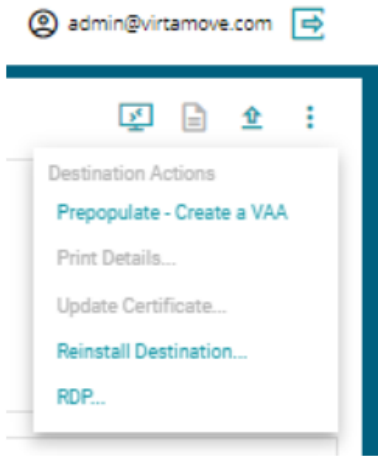
Claim	US 9,697,038 Claim Term	Analysis
		<p>Step 3: Moving</p> <p>Now it's time to move the app workload to a new Cloud VM. Start with a walkthrough of the app with the user and the migration team to ensure a shared understanding of how the app works at a basic level. The migration team will use this basic functionality to do initial testing of the onboarded app.</p> <p>Next, consider the network or pipe between the source server and Cloud environment. If you're moving a large workload, volume may cause significant network latency. One way to work around this problem is to do a staged migration, where you complete the operating upgrade on a locally provisioned modern server on the same network as the source system. You can then use physical and file transfers to move the upgraded workload to the Cloud.</p> <p>For high volume, large-scale onboarding projects, you'll need to develop a repeatable approach to address network latency.</p> <p>Using VirtaMove tools, moving could look something like this:</p> <ol style="list-style-type: none"> 1. You might complete the VirtaMove migration on a local destination server. 2. Compress the container. This generates a CAP file, which is a compressed version of the container with all the application(s), data, and configurations. 3. Transfer the CAP file to the hosted Cloud environment. 4. Using the VirtaMove Administration Console, uncompress the CAP file. This ensures that the container is functioning. <p>(https://virtamove.com/blog/cloud-onboarding-with-virtamove-7-steps-to-success/)</p> <p>Storing of containers may occur either on “modern in-house servers <i>or on hybrid or public cloud environments.</i>”</p>


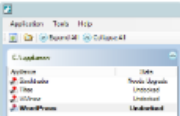

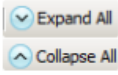
Claim	US 9,697,038 Claim Term	Analysis
		<p>The new release of VirtaMove's award-winning application migration products V-Maestro, V-Monitor, and V-Migrate, moves your infrastructure forward with a stateful re-install of legacy server applications from WS2003, WS2008, WS2012, and WS2016 Server to new WS2019 servers (and within current Microsoft limitations, to Windows Containers on 2019). V-Migrate software automatically moves Windows-based applications from older to newer operating systems, on modern in-house servers or on hybrid or public cloud environments, including Microsoft Azure and Amazon AWS clouds.</p> <p>(https://www.prweb.com/releases/virtamove-v-migrate-now-supports-ws2019-and-windows-container-migrations-897804768.html)</p> <p><i>“When using VirtaMove to migrate applications to the Cloud or to migrate applications off-premises, network latency can greatly increase the time it takes to copy files and perform registry changes.”</i></p>


Claim	US 9,697,038 Claim Term	Analysis
		<h3 data-bbox="667 280 1129 313">Network Latency and Migrations</h3> <div data-bbox="667 345 982 386">  Owned by Thomas Farley (Deactivated) *** Last updated: Mar 25, 2022 • 4 min read </div> <p data-bbox="667 418 1938 508">When using VirtaMove to migrate applications to the Cloud or to migrate applications off-premises, network latency can greatly increase the time it takes to copy files and perform registry changes. Roundtrip latency mainly impacts Windows Remote Registry Protocol (MS-RRP), which is used to manipulate the Windows registry on the destination machine.</p> <p data-bbox="667 532 1938 711">If your scenario involves migrating applications on-premise to the Cloud or off-premises, and you are not sure about network latency between the source and destination machines, VirtaMove recommends that you test migration using a simple, small application, such as Notepad++. Notepad++ is 17 MB on disk and should take no more than 5 minutes to migrate from the source to the destination environment. If the migration takes longer than 5 minutes, you can be reasonably sure that there is latency somewhere in the network. Testing a simple, small application like Notepad++ in your environment will identify potential latency and allow you to determine approximately how long larger applications will take to migrate. It's important to set clear expectations concerning how long a migration is expected to take, for the sake of resource planning and coverage during the change management window.</p> <p data-bbox="667 735 1938 889">If latency is a known constraint in your environment, VirtaMove recommends that you use an interim server in a migration. Using an interim server provides the best strategy for migrating applications across high latency connections using VirtaMove. The interim server is provisioned with the operating system version of the intended destination machine, and placed in close proximity to the source server. The VirtaMove Tether and migration processes happen from the source server to the interim server. Then, the container is compressed and copied to the destination server off-premises. Once the compressed container has been copied successfully, it is uncompressed and finally dissolved onto the destination server, thus completing the migration.</p> <p data-bbox="667 938 2011 971"><u>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310707083/Network+Latency+and+Migrations)</u></p>


Claim	US 9,697,038 Claim Term	Analysis
		 <p>Source Environment</p> <p>Source Machine (Windows Server 2003) → Discover → Extract → VAA → Copy & Run → Interim Machine (Windows Server 2012) → Dissolve & Install</p> <p>Off-Prem / Cloud Environment</p> <p>Destination Machine (Windows Server 2012) ← Compressed VAA (via FTP)</p> <p><i>Migration Process using an Interim Server</i></p> <p>Performing migrations using an interim server ensures that files and registry artifacts are copied with minimal latency; this saves a great deal of time during the pre-populate part of the migration and when you exercise the tethered application. Moving one larger file (a compressed container stored as a .cap file) is the optimal way to move the contained application(s).</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310707083/Network+Latency+and+Migrations)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p><i>The VirtaMove solution:</i> Let's say that you want to move WS2000 or WS2003 applications to a private or public Cloud, but applications are currently running in a VM. You can incur the overhead of moving an exact image of a VM to the Cloud; however, the VM will be burdened with an outdated OS and new Cloud tools will not be available to you.</p> <p>The better approach? Move legacy applications to a native Cloud-supported OS like WS2008, WS2012, or WS2016 <i>as you do the Cloud migration</i>. This is called a staging approach to migration. Staging offers significant benefits:</p> <ul style="list-style-type: none"> ❑ The application (whether standalone or tiered) can be tested/verified on a staging server before deploying it to the Cloud. ❑ The staging server can act as a cloned Test or Development environment. ❑ Updating the OS during Cloud onboarding closes security exposures. Via an intelligent agent, VirtaMove compresses and encrypts data transfer, which means faster and secure transfer for your data and application. <p>Cloud onboarding allows for automated OS maintenance, provides the processing advantages of a clean install, and unlocks Cloud tools for managing and monitoring application performance.</p> <p>VirtaMove automates the migration of legacy applications to the public, private, or hybrid Cloud environment of your choice. If you need to change it up later, you can simply automate the migration of applications back to datacenter servers or to another Cloud environment, which means that you're never locked into a Cloud, VM, or OS version.</p> <p>(https://virtamove.com/blog/q-and-a/)</p>
9	The system according to claim 1, wherein each of the one or more applications is installed into its own isolated environment.	<p>The Accused Products comprise a system as claimed in claim 1. <i>See</i> claim 1. The Accused Products comprise a system, “wherein each of the one or more applications is installed into its own isolated environment.”</p> <p>For example, through the Accused Products, multiple containers, each housing specific applications, may be created as part of the application migration process.</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>Running Multiple Containers</p> <p>The <code>virtarun</code> command uses shared memory, which allows VirtaMove to reduce the amount of memory needed when running multiple containers. For example, if you run 10 containers, this does not mean that 10 times the amount of memory is being used.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/313688121/Running+Containers)</p> <p>Step 2: Prepopulate a Container</p> <p> Owned by Thomas Farley (Deactivated) *** Mar 29, 2022 • 1 min read</p> <p>Once the pre-migration Audit is complete, you can create a migration container and populate it with the application and its dependencies. V-Maestro will copy all dependencies into the container, such as user and group accounts and COM objects. Once this step is complete, V-Maestro will dock the container, which registers the container onto the operating system of the destination.</p> <p>To Create and Prepopulate a Container</p> <ol style="list-style-type: none"> 1. In the Destination Details window, click the Actions icon at the top and select Prepopulate - Create a VAA.  <ol style="list-style-type: none"> 2. Click Continue to confirm. You can check Current Operation in the Migrations in-Progress card to see the status of the prepopulation process.

Claim	US 9,697,038 Claim Term	Analysis
		<p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314802710/Step+2+Prepopulate+a+Container)</p> <h3>Viewing Containers</h3> <p> Owned by Thomas Farley (Deactivated) *** Last updated: Sept 02, 2022 • 3 min read</p> <p>You can view a list of containers and creation information for a container. View the list of containers displayed in the left side of the Administrative Console window.</p>  <p>You can use the following commands to manage the list:</p> <ul style="list-style-type: none"> Refresh the list  <ul style="list-style-type: none"> Expand or collapse the container locations in the list.  <p>You can view information about the environment in which a container was created, such as the operating system and the VirtaMove software version. You can also view information about docked hosts.</p> <p>You can add or remove container locations in the view list, and change the default folder for containers.</p> <p>Note: Containers are not deleted from the source machine when you remove a container location from the list. For information about deleting containers, see Deleting Containers.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311231096/Viewing+Containers)</p>


Claim	US 9,697,038 Claim Term	Analysis
		<p>The Accused Products discovers and monitors multiple sources and applications. Each application and their components and dependencies may be pre-populated into their own distinct containers.</p> <p>About Monitoring Applications</p> <p> Owned by Thomas Farley (Deactivated) *** Mar 29, 2022 • 1 min read</p> <p>Monitoring discovered sources and the applications they are running lets you collect data about how and when these applications are used, in real time. It also discovers application components and dependencies that you might not be aware of, and how application components might be distributed across a network. Monitoring reduces the amount of time required to exercise the application on the destination, which therefore minimizes the duration of the maintenance window.</p> <p>After monitoring selected applications for a few days, you can decide how best to move them to selected destinations, or whether to even move them at all if they don't appear to be a priority for migration based on usage data. For example, applications with a monitoring status of No Usage may not be usefully moved.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314802606/About+Monitoring+Applications)</p>


Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="657 272 1245 313">Updating the VirtaMove Activation Code</p> <div data-bbox="657 337 987 386">  Owned by Thomas Farley (Deactivated) *** Mar 03, 2022 • 1 min read </div> <p data-bbox="657 410 1428 443">You can update the activation code for your VirtaMove license in the Administrative Console.</p> <p data-bbox="657 459 1869 524">After you update the activation code, any subsequent containers connecting to the source machine associated with the activation code will not be prompted for activation. Connections to new source machines will use the default activation code.</p> <p data-bbox="657 540 762 573">Important:</p> <p data-bbox="657 573 1948 638">Changing the default activation code will change the activation code for ALL containers. If you have multiple containers and you update the activation code, existing and new containers will now use the new activation code. This scenario might result in containers using an extra license allotment.</p> <p data-bbox="657 686 1104 727">To Update the Activation Code</p> <ol data-bbox="657 735 1371 881" style="list-style-type: none"> 1. Open the VirtaMove Administrative Console. 2. Select Tools>Set Activation Code. The Update Activation Codes window appears. 3. Enter the Activation Code, and then click Apply. 4. Click Done. <p data-bbox="657 914 2043 995"><u>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311394720/Updating+the+VirtaMove+Activation+Code)</u></p>

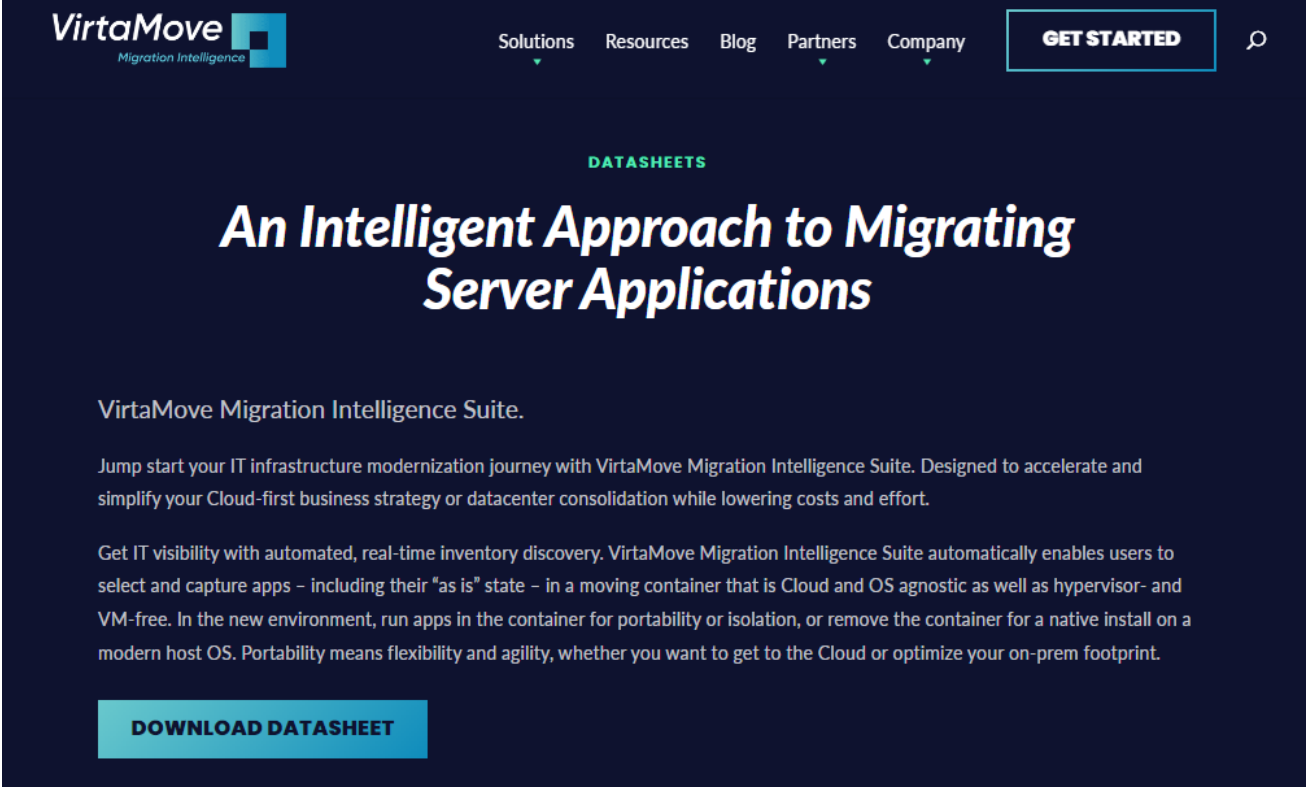
Claim	US 9,697,038 Claim Term	Analysis												
		<div>Managing Source Products</div> <div><div><div>TF</div><div>Owned by Thomas Farley (Deactivated) *** Last updated: Mar 28, 2022 • 2 min read</div></div><div><div><div>1. Select a container, and then click the Tether tab.</div><div>2. Optional. Click the Use Tether check box to enable Tether.</div><div>3. To test the connection to the source machine, click the Test Connection button. If credentials fail or pre-requisites have not been met for tethering, an error message is displayed. You can view the Audit Report in the installation directory to determine what the problem is.</div><div>4. Run an Audit of the source and destination machine by clicking the Run Audit button. If credentials fail or pre-requisites have not been met for tethering, an error message is displayed at the bottom of the Administrative Console window. To scroll through messages, click the Back or Forward button on the left or right of the message bar. You can view the Audit Report by going to the Appliance Logs tab to determine what the problem is.</div><div>5. Click the Find Applications button. VirtaMove retrieves all remote applications, services, and user/group account information and displays this information in the Source Products tab.</div><div>6. In the Source Products tab, review the list of source applications.</div><div>7. Select the product or products you want to migrate or de-select a product or products as appropriate. To select an IIS application, select Web Server (IIS). Before you attempt to migrate an IIS application, complete pre-requisites for IIS application migration. For information about pre-requisites and how to migrate an IIS application, see the Application Migration Guide. When you click away from the list in the Source Products tab, VirtaMove Tether automatically selects all user/group accounts, services, and executables associated with the installed application and displays these in the Source Services and Source Accounts tabs.</div></div></div><div><div>Source Products</div><div>Source ServicesSource AccountsSource COMSource Tasks</div><table><thead><tr><th>Product Name</th><th>Estimated Size</th></tr></thead><tbody><tr><td><input type="checkbox"/> Microsoft Data Access 2.6 SDK Lite</td><td>10.12 MB</td></tr><tr><td><input checked="" type="checkbox"/> Microsoft Office XP Professional</td><td>113.3 MB</td></tr><tr><td><input checked="" type="checkbox"/> Microsoft SQL Server 2000 Analysis Services</td><td>N/A</td></tr><tr><td><input type="checkbox"/> Microsoft SQL Server 2000 PivotTable Services</td><td>N/A</td></tr><tr><td><input checked="" type="checkbox"/> Microsoft SQL Server 2008 R2</td><td>N/A</td></tr></tbody></table><div>SaveCancel</div></div><div><div><div>8. Click the Pre-Populate button to migrate source products, services, users, and groups. If you have not yet activated your VirtaMove license key, you will now be prompted to do so. See Activating Your VirtaMove License for information. Note that the Pre-Populate portion process may take some time. A window displays the status of the Pre-Populate process. You can cancel the process by closing the window at the top right of the window. Click the Close button to close the window when the process is complete.</div><div>9. To start the selected application, click Dock button and then click the Launch Application button once the container is successfully docked.</div><div>10. Click Save.</div></div><div>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311427775/Managing+Source+Products)</div></div></div>	Product Name	Estimated Size	<input type="checkbox"/> Microsoft Data Access 2.6 SDK Lite	10.12 MB	<input checked="" type="checkbox"/> Microsoft Office XP Professional	113.3 MB	<input checked="" type="checkbox"/> Microsoft SQL Server 2000 Analysis Services	N/A	<input type="checkbox"/> Microsoft SQL Server 2000 PivotTable Services	N/A	<input checked="" type="checkbox"/> Microsoft SQL Server 2008 R2	N/A
Product Name	Estimated Size													
<input type="checkbox"/> Microsoft Data Access 2.6 SDK Lite	10.12 MB													
<input checked="" type="checkbox"/> Microsoft Office XP Professional	113.3 MB													
<input checked="" type="checkbox"/> Microsoft SQL Server 2000 Analysis Services	N/A													
<input type="checkbox"/> Microsoft SQL Server 2000 PivotTable Services	N/A													
<input checked="" type="checkbox"/> Microsoft SQL Server 2008 R2	N/A													

Claim	US 9,697,038 Claim Term	Analysis
10	The system according to claim 1, wherein two or more applications are installed into a shared isolated environment.	<p>The Accused Products comprise a system as claimed in claim 1. The Accused Products comprise a system, “wherein two or more applications are installed into a shared isolated environment.”</p> <p>For example, the Accused Products “isolate applications.” Specifically, the Accused Products “create a virtual container” and “[p]re-populate the virtual container with <i>applications, services, accounts, components, and files</i> selected from the source machine.”</p>

Claim	US 9,697,038 Claim Term	Analysis
		<div data-bbox="657 264 1938 1279"> <h2 style="text-align: center;">VirtaMove: It's Not Just Application Modernization</h2> <p style="text-align: center;">by NIGEL STOKES August 09, 2017</p> <p>For some time now we've been blogging about the advantages of automated Application Modernization using our unique container-based technology for Microsoft Server environments. However, customers have discovered many advantages of VirtaMove containers that extend beyond application modernization. For years, customers have been taking advantage of VirtaMove containers to solve a range of business challenges.</p> <p>1. ISOLATE APPLICATIONS</p> <p>In many industries, like Insurance, Healthcare or Pharmaceuticals and even in Banking, customers must verify compliance of business applications to rigorous, auditable standards (for example HIPAA is a compliance standard in regulated Healthcare-related businesses). Once an application is certified, making changes requires a time consuming and expensive recertification process. To avoid recertification, customers containerize legacy applications and run them in isolation on newer OS and server environments. Containerization allows customers to run several close variations of applications, each dependent on unique but similar software stacks on the same server. The isolation provided by containerization avoids conflicts between different stacks (for example, database and driver variations) and eliminates the need to manage multiple servers and license multiple OS platforms for each application.</p> <p>2. CREATE EXACT APPLICATION IMAGES FOR DEVELOPMENT</p> <p>Software development is a demanding business. Under pressure to meet deadlines, software developers may well forget about the detailed installation scripts and configuration data required to create identical cloud or test copies of an application. However, if applications are containerized, it's easy to create exact images on newer OSs such as Windows Server 2008 R2 or WS2012 or WS2016. This eliminates the need to worry about recreating an installation process or scripts. Additionally, applications that are containerized with VirtaMove on WS2008 can run seamlessly on WS2012 or WS2016.</p> <p>Containerization accelerates the development and testing of new software by making it easy to create identical copies of the software on both datacentre and cloud servers. It lets the developer focus on building software that solves business problems rather than worrying about the details of configuration.</p> </div> <p>(https://virtamove.com/blog/not-just-app-modernization/)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>The Application Migration Process</p> <p> Owned by Thomas Farley (Deactivated) *** Last updated: Mar 25, 2022 • 2 min read</p> <p>Migrating an application involves the following steps:</p> <ol style="list-style-type: none"> 1. Meet requirements for your environment as well as source and destination machines. See https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310706978 Can't find link. 2. Double-click the Administrative Console shortcut icon on your desktop to start Administrative Console. 3. Create a virtual container and connect it to the source machine. 4. Pre-populate the virtual container with applications, services, accounts, components, and files selected from the source machine. 5. Run your virtualized application on the destination machine and exercise the application. See Running and Exercising Your Application. 6. Run VirtaMove Dissolve if you want to remove the migration container from the application and transfer the application to the underlying operating system on the destination machine so that the application will behave as if natively installed. Note that this process cannot be reversed. See Dissolving a Virtual Container. You may wish to keep the application running in the migration container, as required. <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310739347/The+Application+Migration+Process)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<h2 data-bbox="709 289 1495 345">Step 2: Prepopulate a Container</h2> <div data-bbox="709 402 1264 475">  Owned by Thomas Farley (Deactivated) ... Mar 29, 2022 • 1 min read </div> <p data-bbox="709 532 1915 792">Once the pre-migration Audit is complete, you can <u>create a migration container and populate it with the application and its dependencies</u>. V-Maestro will copy all dependencies into the container, such as user and group accounts and COM objects. Once this step is complete, V-Maestro will dock the container, which registers the container onto the operating system of the destination.</p> <p data-bbox="657 849 1999 881">https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314802710/Step+2+Prepopulate+a+Container</p> <p data-bbox="657 914 1948 946">Additional evidence showing VirtaMove's infringement is found in at least the following documents:</p>


Claim	US 9,697,038 Claim Term	Analysis
		 <p>(https://virtamove.com/resources/an-intelligent-approach-to-migrating-server-applications/)</p>


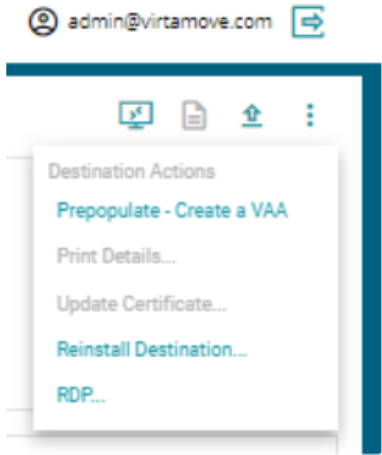
Claim	US 9,697,038 Claim Term	Analysis
		<p>3. CONTAINERIZE AND ISOLATE APPLICATIONS</p> <p><i>The problem:</i> In regulated businesses, customers need to modernize certified applications that are running on legacy operating systems so that they can enable these apps on a supported OS. In many industries, like Insurance, Healthcare, Pharmaceuticals, and Banking, customers must verify compliance of business applications to rigorous, auditable standards (HIPAA and HITECH, for example, are compliance standards in regulated Healthcare-related businesses). Once an application is certified, making changes requires a time consuming and expensive re-certification process.</p> <p><i>The VirtaMove solution:</i> Avoid the pain of re-certification by using VirtaMove to containerize legacy applications and run them in isolation on modern OS and server environments.</p> <p>Containerization allows customers to run several close variations of applications, each dependent on unique but similar software stacks on the same server. The isolation provided by VirtaMove containers avoids conflicts between different stacks (for example, database and driver variations) and eliminates the need to manage multiple servers and license multiple OS platforms for each application. In addition, security and performance are improved by virtue of running on a modern server platform.</p> <p>(https://virtamove.com/blog/q-and-a/)</p>


Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="688 289 1734 350"><i>Protect your applications by modernizing</i></p> <p data-bbox="688 378 1848 440">All the monitoring in the world doesn't eliminate the work involved in upgrading application stacks to new operating systems and software versions to improve security and reduce exposure to cyber warfare.</p> <p data-bbox="688 475 1205 500">Several options are available when it comes to upgrading:</p> <p data-bbox="688 527 951 548">1. REDEVELOP AN APP</p> <p data-bbox="701 565 1923 626">□ You can incur the cost of redeveloping an application on a new OS. However, custom remediation costs can be substantial (more than six figures) and take months of effort and disruption.</p> <p data-bbox="688 678 1108 699">2. CHOOSE AN ISV UPGRADE PATH</p> <p data-bbox="701 716 1875 777">□ If an ISV is involved, you might choose their upgrade path, along with the licensing and migration costs and delays for that single component of the software stack.</p> <p data-bbox="688 829 1207 850">3. UPGRADE A SOFTWARE STACK BY HAND</p> <p data-bbox="701 867 1913 1003">□ You might choose to upgrade a software stack by hand. This involves knowing what you still need, installing new versions of all the software components on the new server infrastructure, developing a data and application migration plan for each component, and developing a test plan to verify the migration. You will then need to remediate and rework any failed components. These steps can take weeks of planning, execution, and verification.</p> <p data-bbox="688 1055 1190 1076">4. USE AN AUTOMATED MIGRATION TOOL</p> <p data-bbox="701 1092 1913 1192">□ This option involves using an automated migration tool to isolate all the application stack dependencies from the underlying OS. You then move the application to the new server and OS infrastructure (upgrading database components on the fly if required). Intelligent automation then places the software stack in the right place on the new OS.</p> <p data-bbox="688 1247 1566 1271">Automated migration can take just a few hours and not uncommonly saves many weeks of labour.</p> <p data-bbox="659 1328 1297 1365">(https://virtamove.com/blog/cyber-warfare-again/)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p><i>The VirtaMove solution:</i> Avoid the pain of re-certification by using VirtaMove to containerize legacy applications and run them in isolation on modern OS and server environments.</p> <p>Containerization allows customers to run several close variations of applications, each dependent on unique but similar software stacks on the same server. The isolation provided by VirtaMove containers avoids conflicts between different stacks (for example, database and driver variations) and eliminates the need to manage multiple servers and license multiple OS platforms for each application. In addition, security and performance are improved by virtue of running on a modern server platform.</p> <p>(https://virtamove.com/blog/q-and-a/)</p> <p><i>“Your server may have external server dependencies that need to be taken into consideration. These are indicated by port connections and data flow of this dotted line. The dotted line tells us the servers are connected in some way. In this instance, it tells us they have a relationship and we should dig down to find out if these are the same applications or perhaps a back-end database service. This is valuable information in terms of deciding when migrating one of these application layers, there may be a knock-on effect on additional servers and infrastructure layers. It lets you plan how to address multi-tier applications. You may need to move one, two or all three of the apps and servers at same time ... The dotted line might simply indicate desktop users or [there] may be other computers or servers that have database components associated with this application in some fashion.”</i></p>

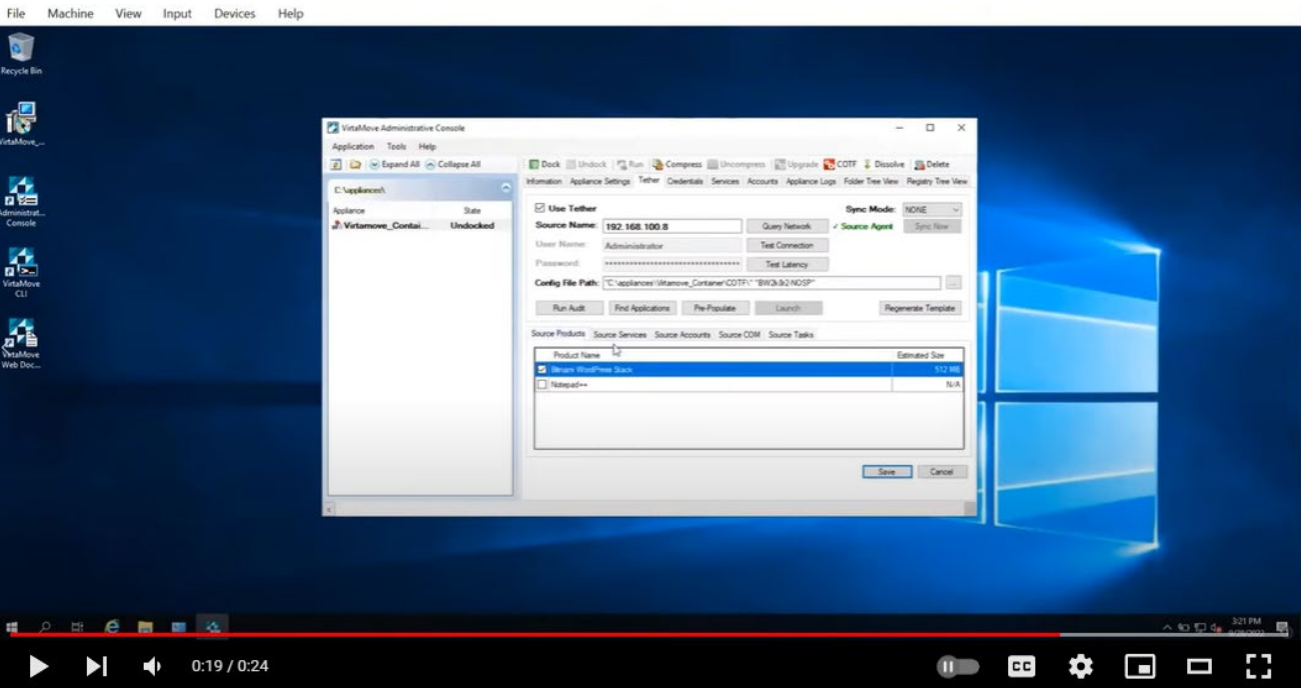
Claim	US 9,697,038 Claim Term	Analysis
		 <p>The video player displays a presentation slide. In the top right corner, there is a logo consisting of a blue square with a white 'V' inside. The word 'Interdependencies' is centered on the slide in a large, teal-colored font. Below the slide, the video player's control bar is visible, showing a progress bar at 6:05 / 13:14, along with standard playback controls like play, pause, and volume.</p> <p>(https://www.youtube.com/watch?v=nOIMUwHMvY0&t=274s)</p>

Claim	US 9,697,038 Claim Term	Analysis
11	The system according to claim 10, wherein the two or more applications share resources inside the shared isolated environment.	<p>The Accused Products comprise a system as claimed in claim 10. <i>See</i> claim 1. The Accused Products comprise a system, “wherein two or more applications share resources inside the shared isolated environment.”</p> <p>For example, the Accused Products “create a virtual container” and “[p]re-populate the virtual container with <i>applications, services, accounts, components, and files</i> selected from the source machine.”</p> <h3>The Application Migration Process</h3> <p> Owned by Thomas Farley (Deactivated) · Last updated: Mar 25, 2022 · 2 min read</p> <p>Migrating an application involves the following steps:</p> <ol style="list-style-type: none"> 1. Meet requirements for your environment as well as source and destination machines. See https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310706978 Can't find link. 2. Double-click the Administrative Console shortcut icon on your desktop to start Administrative Console. 3. Create a virtual container and connect it to the source machine. 4. Pre-populate the virtual container with applications, services, accounts, components, and files selected from the source machine. 5. Run your virtualized application on the destination machine and exercise the application. See Running and Exercising Your Application. 6. Run VirtaMove Dissolve if you want to remove the migration container from the application and transfer the application to the underlying operating system on the destination machine so that the application will behave as if natively installed. Note that this process cannot be reversed. See Dissolving a Virtual Container. You may wish to keep the application running in the migration container, as required. <h3>Pre-Populate</h3> <p>Pre-populating a container is part of the VirtaMove application migration process. Pre-population migrates remote products, services, users, and groups without requiring downtime of the application on the source server. Any locked files will not be copied over until the application is fully exercised.</p> <p>Pre-populate captures components of the application while the application is up and running on the source server. You can then schedule a maintenance window at a later time for the application. It is during this maintenance window that you would stop and shut down the application before you complete the migration by exercising the application.</p> <p>Pre-populate occurs when you click the Pre-Populate button in the VirtaMove Administrative Console under the Tether tab. A window displays the status of the Pre-Populate process.</p>


Claim	US 9,697,038 Claim Term	Analysis
		<p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310739347/The+Application+Migration+Process)</p> <h3>Step 2: Prepopulate a Container</h3> <p> Owned by Thomas Farley (Deactivated) *** Mar 29, 2022 • 1 min read</p> <p>Once the pre-migration Audit is complete, you can create a migration container and populate it with the application and its dependencies. V-Maestro will copy all dependencies into the container, such as user and group accounts and COM objects. Once this step is complete, V-Maestro will dock the container, which registers the container onto the operating system of the destination.</p> <h3>To Create and Prepopulate a Container</h3> <ol style="list-style-type: none"> 1. In the Destination Details window, click the Actions icon at the top and select Prepopulate - Create a VAA.  <ol style="list-style-type: none"> 2. Click Continue to confirm. You can check Current Operation in the Migrations in-Progress card to see the status of the prepopulation process. <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314802710/Step+2+Prepopulate+a+Container)</p>

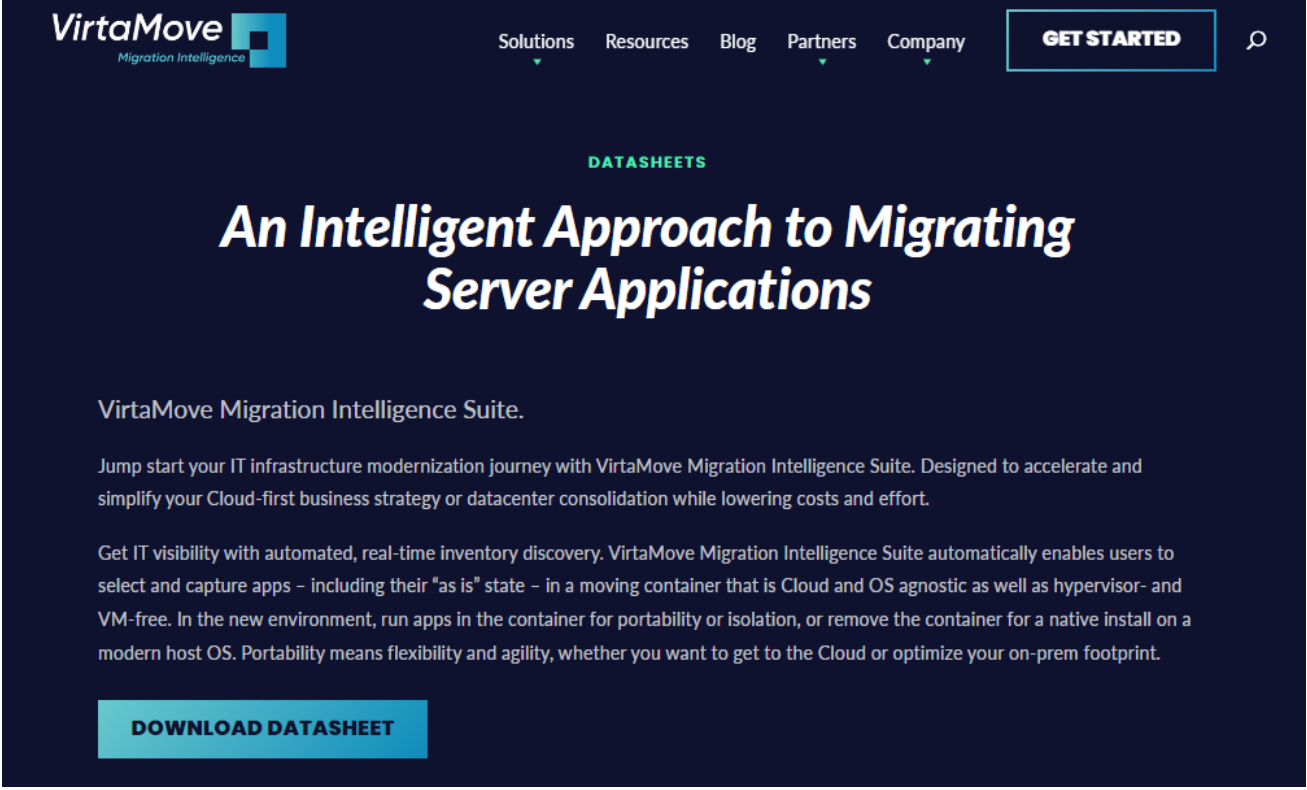
Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="661 272 1098 313">About Monitoring Applications</p> <div data-bbox="661 337 980 378">  Owned by Thomas Farley (Deactivated) *** Mar 29, 2022 • 1 min read </div> <p data-bbox="661 410 1938 524">Monitoring discovered sources and the applications they are running lets you collect data about how and when these applications are used, in real time. It also discovers application components and dependencies that you might not be aware of, and how application components might be distributed across a network. Monitoring reduces the amount of time required to exercise the application on the destination, which therefore minimizes the duration of the maintenance window.</p> <p data-bbox="661 548 1927 638">After monitoring selected applications for a few days, you can decide how best to move them to selected destinations, or whether to even move them at all if they don't appear to be a priority for migration based on usage data. For example, applications with a monitoring status of No Usage may not be usefully moved.</p> <p data-bbox="661 686 1980 719"><u>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314802606/About+Monitoring+Applications)</u></p>

Claim	US 9,697,038 Claim Term	Analysis												
		<div>Managing Source Products</div> <div><div><div>TF</div><div>Owned by Thomas Farley (Deactivated) *** Last updated: Mar 28, 2022 • 2 min read</div></div><div><div><div>1. Select a container, and then click the Tether tab.</div><div>2. Optional. Click the Use Tether check box to enable Tether.</div><div>3. To test the connection to the source machine, click the Test Connection button. If credentials fail or pre-requisites have not been met for tethering, an error message is displayed. You can view the Audit Report in the installation directory to determine what the problem is.</div><div>4. Run an Audit of the source and destination machine by clicking the Run Audit button. If credentials fail or pre-requisites have not been met for tethering, an error message is displayed at the bottom of the Administrative Console window. To scroll through messages, click the Back or Forward button on the left or right of the message bar. You can view the Audit Report by going to the Appliance Logs tab to determine what the problem is.</div><div>5. Click the Find Applications button. VirtaMove retrieves all remote applications, services, and user/group account information and displays this information in the Source Products tab.</div><div>6. In the Source Products tab, review the list of source applications.</div><div>7. Select the product or products you want to migrate or de-select a product or products as appropriate. To select an IIS application, select Web Server (IIS). Before you attempt to migrate an IIS application, complete pre-requisites for IIS application migration. For information about pre-requisites and how to migrate an IIS application, see the Application Migration Guide. When you click away from the list in the Source Products tab, VirtaMove Tether automatically selects all user/group accounts, services, and executables associated with the installed application and displays these in the Source Services and Source Accounts tabs.</div></div></div><div><div>Source Products</div><div><div>Source Services</div><div>Source Accounts</div><div>Source COM</div><div>Source Tasks</div></div><div><table><thead><tr><th>Product Name</th><th>Estimated Size</th></tr></thead><tbody><tr><td><input type="checkbox"/> Microsoft Data Access 2.6 SDK Lite</td><td>10.12 MB</td></tr><tr><td><input checked="" type="checkbox"/> Microsoft Office XP Professional</td><td>113.3 MB</td></tr><tr><td><input checked="" type="checkbox"/> Microsoft SQL Server 2000 Analysis Services</td><td>N/A</td></tr><tr><td><input type="checkbox"/> Microsoft SQL Server 2000 PivotTable Services</td><td>N/A</td></tr><tr><td><input checked="" type="checkbox"/> Microsoft SQL Server 2008 R2</td><td>N/A</td></tr></tbody></table><div><div>Save</div><div>Cancel</div></div></div></div><div><div><div>8. Click the Pre-Populate button to migrate source products, services, users, and groups. If you have not yet activated your VirtaMove license key, you will now be prompted to do so. See Activating Your VirtaMove License for information. Note that the Pre-Populate portion process may take some time. A window displays the status of the Pre-Populate process. You can cancel the process by closing the window at the top right of the window. Click the Close button to close the window when the process is complete.</div><div>9. To start the selected application, click Dock button and then click the Launch Application button once the container is successfully docked.</div><div>10. Click Save.</div></div></div><div>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311427775/Managing+Source+Products)</div></div>	Product Name	Estimated Size	<input type="checkbox"/> Microsoft Data Access 2.6 SDK Lite	10.12 MB	<input checked="" type="checkbox"/> Microsoft Office XP Professional	113.3 MB	<input checked="" type="checkbox"/> Microsoft SQL Server 2000 Analysis Services	N/A	<input type="checkbox"/> Microsoft SQL Server 2000 PivotTable Services	N/A	<input checked="" type="checkbox"/> Microsoft SQL Server 2008 R2	N/A
Product Name	Estimated Size													
<input type="checkbox"/> Microsoft Data Access 2.6 SDK Lite	10.12 MB													
<input checked="" type="checkbox"/> Microsoft Office XP Professional	113.3 MB													
<input checked="" type="checkbox"/> Microsoft SQL Server 2000 Analysis Services	N/A													
<input type="checkbox"/> Microsoft SQL Server 2000 PivotTable Services	N/A													
<input checked="" type="checkbox"/> Microsoft SQL Server 2008 R2	N/A													

Claim	US 9,697,038 Claim Term	Analysis
		<p>“We can go through the list of applications and select the ones we want to bring over.”</p>  <p>(https://www.youtube.com/watch?v=FvS88KEERwA)</p> <p><i>“Your server may have external server dependencies that need to be taken into consideration. These are indicated by port connections and data flow of this dotted line. The dotted line tells us the servers are connected in some way. In this instance, it tells us they have a relationship and we should dig down to find out if these are the same applications or perhaps a back-end database service. This is valuable information in terms of deciding when migrating one of these application layers, there may be a knock-on effect on additional servers and infrastructure layers. It lets you plan how to address multi-tier applications. You may need to move one, two or all three of the apps and servers at same time ... The dotted line might simply</i></p>


Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="657 272 1938 345"><i>indicate desktop users or [there] may be other computers or servers that have database components associated with this application in some fashion.”</i></p> <div data-bbox="657 540 1938 1385"><p>The video player displays a presentation slide. In the top right corner, there is a logo consisting of a teal square with a white 'V' and a teal triangle. The word 'Interdependencies' is centered on the slide in a large, teal, sans-serif font. Below the slide, the video player's control bar is visible, showing a red progress bar, play/pause, next, volume, and other standard controls. The timestamp '6:05 / 13:14' is displayed in the center of the control bar.</p></div>


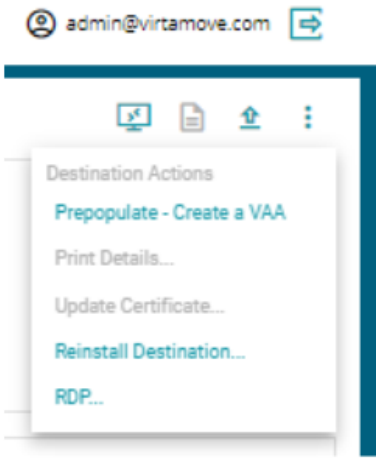
Claim	US 9,697,038 Claim Term	Analysis
		<p>(https://www.youtube.com/watch?v=nOIMUwHMvY0&t=274s)</p> <p>Migrating Folders, Shared Folders, and Registries</p> <p> Owned by Thomas Farley (Deactivated) *** Mar 04, 2022 • 3 min read</p> <p>Using the Tree View feature, you can select folders and registries that you want to add to the tethering process and copy them over to the destination machine during the migration progress. You can also select which shared folders you want to set up on the destination machine.</p> <p>For information about shared folders, see About Shared Folders.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311394835/Migrating+Folders+Shared+Folders+and+Registries)</p> <p>10. Select the directories, shared folders, and registry keys you want to tether and then click Save on each respective tab. Note that these files are added to the container and cannot be unselected or removed from the container after you click Save.</p> <p>If you click the Scan Files or Scan Registry button again, the feature will search the source machine and migrated registry hives again. Any detected changes will be applied to the tree views.</p> <p>If you want to add more nodes to the migration process, you can select and save nodes that are displayed in black font. Node trees persist, so if you switch containers or close the Administrative Console and return to the Tree View tabs later, the data will still be available.</p> <p>11. Click the Tether tab and then click Pre-Populate. The saved directories, shared folders, and registry keys, as well any selected products, services, users, etc., are migrated to the destination machine.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311394835/Migrating+Folders+Shared+Folders+and+Registries)</p> <p>Additional evidence showing VirtaMove's infringement is found in at least the following documents:</p>


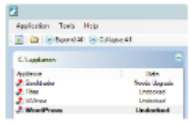

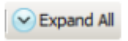
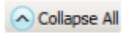
Claim	US 9,697,038 Claim Term	Analysis
		 <p>(https://virtamove.com/resources/an-intelligent-approach-to-migrating-server-applications/)</p>


Claim	US 9,697,038 Claim Term	Analysis
		<p>3. CONTAINERIZE AND ISOLATE APPLICATIONS</p> <p><i>The problem:</i> In regulated businesses, customers need to modernize certified applications that are running on legacy operating systems so that they can enable these apps on a supported OS. In many industries, like Insurance, Healthcare, Pharmaceuticals, and Banking, customers must verify compliance of business applications to rigorous, auditable standards (HIPAA and HITECH, for example, are compliance standards in regulated Healthcare-related businesses). Once an application is certified, making changes requires a time consuming and expensive re-certification process.</p> <p><i>The VirtaMove solution:</i> Avoid the pain of re-certification by using VirtaMove to containerize legacy applications and run them in isolation on modern OS and server environments.</p> <p>Containerization allows customers to run several close variations of applications, each dependent on unique but similar software stacks on the same server. The isolation provided by VirtaMove containers avoids conflicts between different stacks (for example, database and driver variations) and eliminates the need to manage multiple servers and license multiple OS platforms for each application. In addition, security and performance are improved by virtue of running on a modern server platform.</p> <p>(https://virtamove.com/blog/q-and-a/)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="688 289 1734 350"><i>Protect your applications by modernizing</i></p> <p data-bbox="688 378 1848 440">All the monitoring in the world doesn't eliminate the work involved in upgrading application stacks to new operating systems and software versions to improve security and reduce exposure to cyber warfare.</p> <p data-bbox="688 475 1205 500">Several options are available when it comes to upgrading:</p> <p data-bbox="688 527 951 548">1. REDEVELOP AN APP</p> <p data-bbox="699 565 1923 626">□ You can incur the cost of redeveloping an application on a new OS. However, custom remediation costs can be substantial (more than six figures) and take months of effort and disruption.</p> <p data-bbox="688 678 1108 699">2. CHOOSE AN ISV UPGRADE PATH</p> <p data-bbox="699 716 1875 777">□ If an ISV is involved, you might choose their upgrade path, along with the licensing and migration costs and delays for that single component of the software stack.</p> <p data-bbox="688 829 1207 850">3. UPGRADE A SOFTWARE STACK BY HAND</p> <p data-bbox="699 867 1913 1002">□ You might choose to upgrade a software stack by hand. This involves knowing what you still need, installing new versions of all the software components on the new server infrastructure, developing a data and application migration plan for each component, and developing a test plan to verify the migration. You will then need to remediate and rework any failed components. These steps can take weeks of planning, execution, and verification.</p> <p data-bbox="688 1053 1190 1075">4. USE AN AUTOMATED MIGRATION TOOL</p> <p data-bbox="699 1091 1913 1190">□ This option involves using an automated migration tool to isolate all the application stack dependencies from the underlying OS. You then move the application to the new server and OS infrastructure (upgrading database components on the fly if required). Intelligent automation then places the software stack in the right place on the new OS.</p> <p data-bbox="688 1247 1566 1271">Automated migration can take just a few hours and not uncommonly saves many weeks of labour.</p> <p data-bbox="657 1328 1299 1360">(https://virtamove.com/blog/cyber-warfare-again/)</p>


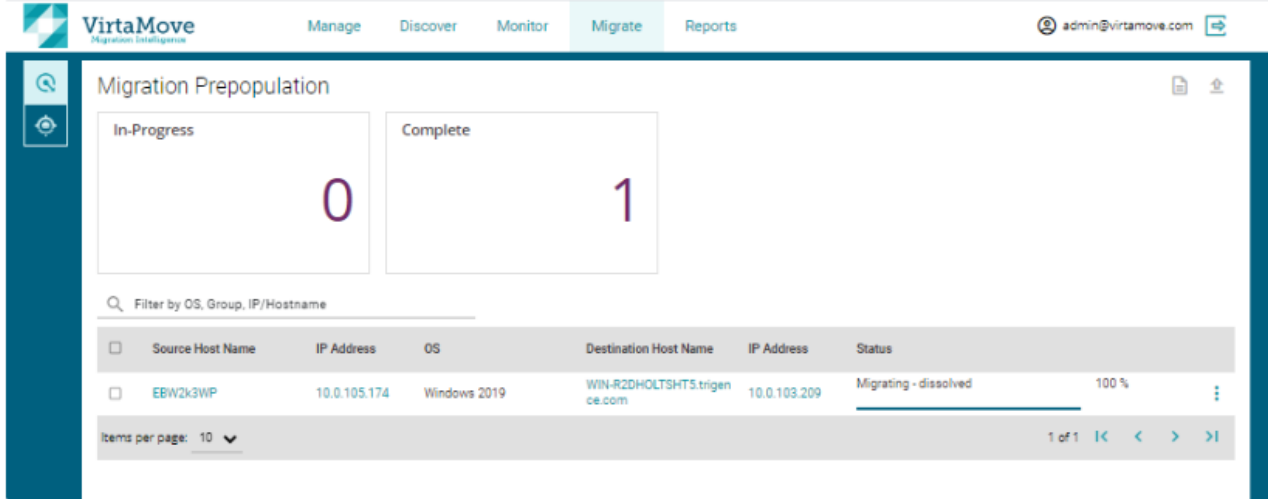
Claim	US 9,697,038 Claim Term	Analysis
		<p><i>The VirtaMove solution:</i> Avoid the pain of re-certification by using VirtaMove to containerize legacy applications and run them in isolation on modern OS and server environments.</p> <p>Containerization allows customers to run several close variations of applications, each dependent on unique but similar software stacks on the same server. The isolation provided by VirtaMove containers avoids conflicts between different stacks (for example, database and driver variations) and eliminates the need to manage multiple servers and license multiple OS platforms for each application. In addition, security and performance are improved by virtue of running on a modern server platform.</p> <p>(https://virtamove.com/blog/q-and-a/)</p>
12	The system according to claim 1, wherein two or more applications are installed into separate isolated environments and the one or more applications run concurrently in the separate isolated environments.	<p>The Accused Products comprise a system as claimed in claim 1. <i>See</i> claim 1. The Accused Products comprise a system, “wherein two or more applications are installed into separate isolated environments and the one or more applications run concurrently in the separate isolated environments.”</p> <p>For example, through the Accused Products, multiple containers, each housing specific applications, may be created as part of migration. These containers are able to run concurrently on the destination machine/server.</p> <p>Running Multiple Containers</p> <p>The  <code>virtarun</code> command uses shared memory, which allows VirtaMove to reduce the amount of memory needed when running multiple containers. For example, if you run 10 containers, this does not mean that 10 times the amount of memory is being used.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/313688121/Running+Containers)</p>

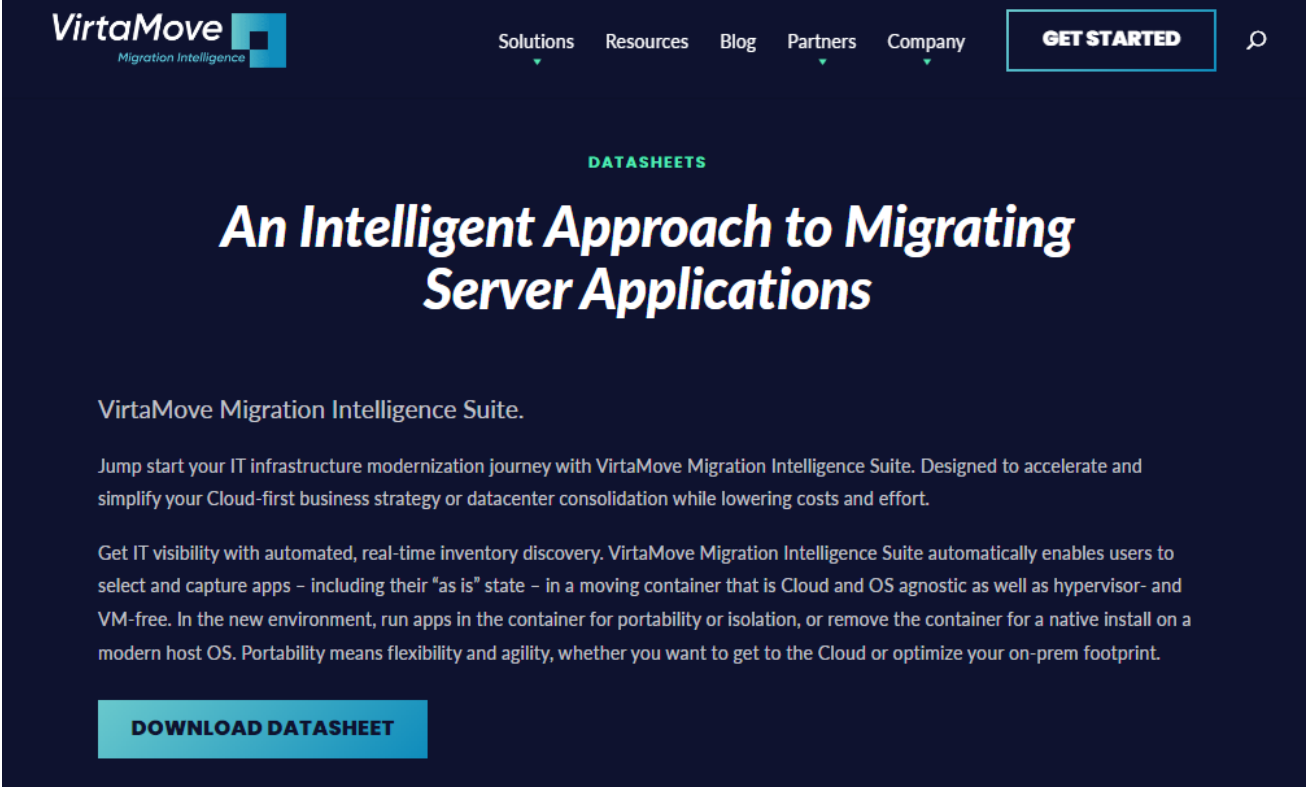
Claim	US 9,697,038 Claim Term	Analysis
		<p>Step 2: Prepopulate a Container</p> <p> Owned by Thomas Farley (Deactivated) *** Mar 29, 2022 • 1 min read</p> <p>Once the pre-migration Audit is complete, you can create a migration container and populate it with the application and its dependencies. V-Maestro will copy all dependencies into the container, such as user and group accounts and COM objects. Once this step is complete, V-Maestro will dock the container, which registers the container onto the operating system of the destination.</p> <p>To Create and Prepopulate a Container</p> <p>1. In the Destination Details window, click the Actions icon at the top and select Prepopulate - Create a VAA.</p>  <p>2. Click Continue to confirm. You can check Current Operation in the Migrations in-Progress card to see the status of the prepopulation process.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314802710/Step+2+Prepopulate+a+Container)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<h3 data-bbox="674 280 951 316">Viewing Containers</h3> <p data-bbox="674 349 997 389">  Owned by Thomas Farley (Deactivated) *** Last updated: Sept 02, 2022 • 3 min read </p> <p data-bbox="674 418 1942 470">You can view a list of containers and creation information for a container. View the list of containers displayed in the left side of the Administrative Console window.</p>  <p data-bbox="674 654 1140 678"><u>You can use the following commands to manage the list:</u></p> <ul data-bbox="674 698 1140 722" style="list-style-type: none"> • Refresh the list  <ul data-bbox="674 873 1140 898" style="list-style-type: none"> • Expand or collapse the container locations in the list. <div data-bbox="703 901 829 974">   </div> <p data-bbox="674 990 1932 1047">You can view information about the environment in which a container was created, such as the operating system and the VirtaMove software version. You can also view information about docked hosts.</p> <p data-bbox="674 1068 1522 1092">You can add or remove container locations in the view list, and change the default folder for containers.</p> <p data-bbox="674 1117 724 1141">Note:</p> <p data-bbox="674 1149 1921 1206">Containers are not deleted from the source machine when you remove a container location from the list. For information about deleting containers, see Deleting Containers.</p> <p data-bbox="657 1263 1822 1295">(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311231096/Viewing+Containers)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>The Accused Products discover and monitor multiple sources and applications. Each application and their components and dependencies may be pre-populated into their own distinct containers.</p> <p>About Monitoring Applications</p> <p> Owned by Thomas Farley (Deactivated) *** Mar 29, 2022 • 1 min read</p> <p>Monitoring discovered sources and the applications they are running lets you collect data about how and when these applications are used, in real time. It also discovers application components and dependencies that you might not be aware of, and how application components might be distributed across a network. Monitoring reduces the amount of time required to exercise the application on the destination, which therefore minimizes the duration of the maintenance window.</p> <p>After monitoring selected applications for a few days, you can decide how best to move them to selected destinations, or whether to even move them at all if they don't appear to be a priority for migration based on usage data. For example, applications with a monitoring status of No Usage may not be usefully moved.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314802606/About+Monitoring+Applications)</p>


Claim	US 9,697,038 Claim Term	Analysis												
		<div>Managing Source Products</div> <div><div>TF</div><div>Owned by Thomas Farley (Deactivated) *** Last updated: Mar 28, 2022 • 2 min read</div></div> <div><div><div>1. Select a container, and then click the Tether tab.</div><div>2. Optional. Click the Use Tether check box to enable Tether.</div><div>3. To test the connection to the source machine, click the Test Connection button. If credentials fail or pre-requisites have not been met for tethering, an error message is displayed. You can view the Audit Report in the installation directory to determine what the problem is.</div><div>4. Run an Audit of the source and destination machine by clicking the Run Audit button. If credentials fail or pre-requisites have not been met for tethering, an error message is displayed at the bottom of the Administrative Console window. To scroll through messages, click the Back or Forward button on the left or right of the message bar. You can view the Audit Report by going to the Appliance Logs tab to determine what the problem is.</div><div>5. Click the Find Applications button. VirtaMove retrieves all remote applications, services, and user/group account information and displays this information in the Source Products tab.</div><div>6. In the Source Products tab, review the list of source applications.</div><div>7. Select the product or products you want to migrate or de-select a product or products as appropriate. To select an IIS application, select Web Server (IIS). Before you attempt to migrate an IIS application, complete pre-requisites for IIS application migration. For information about pre-requisites and how to migrate an IIS application, see the Application Migration Guide. When you click away from the list in the Source Products tab, VirtaMove Tether automatically selects all user/group accounts, services, and executables associated with the installed application and displays these in the Source Services and Source Accounts tabs.</div></div><div><div>Source Products</div><div><div>Source Services</div><div>Source Accounts</div><div>Source COM</div><div>Source Tasks</div></div><div><table><thead><tr><th>Product Name</th><th>Estimated Size</th></tr></thead><tbody><tr><td><input type="checkbox"/> Microsoft Data Access 2.6 SDK Lite</td><td>10.12 MB</td></tr><tr><td><input checked="" type="checkbox"/> Microsoft Office XP Professional</td><td>113.3 MB</td></tr><tr><td><input checked="" type="checkbox"/> Microsoft SQL Server 2000 Analysis Services</td><td>N/A</td></tr><tr><td><input type="checkbox"/> Microsoft SQL Server 2000 Pivot Table Services</td><td>N/A</td></tr><tr><td><input checked="" type="checkbox"/> Microsoft SQL Server 2008 R2</td><td>N/A</td></tr></tbody></table><div><div>Save</div><div>Cancel</div></div></div></div><div><div><div>8. Click the Pre-Populate button to migrate source products, services, users, and groups. If you have not yet activated your VirtaMove license key, you will now be prompted to do so. See Activating Your VirtaMove License for information. Note that the Pre-Populate portion process may take some time. A window displays the status of the Pre-Populate process. You can cancel the process by closing the window at the top right of the window. Click the Close button to close the window when the process is complete.</div><div>9. To start the selected application, click Dock button and then click the Launch Application button once the container is successfully docked.</div><div>10. Click Save.</div></div><div><div>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/311427775/Managing+Source+Products)</div></div></div></div>	Product Name	Estimated Size	<input type="checkbox"/> Microsoft Data Access 2.6 SDK Lite	10.12 MB	<input checked="" type="checkbox"/> Microsoft Office XP Professional	113.3 MB	<input checked="" type="checkbox"/> Microsoft SQL Server 2000 Analysis Services	N/A	<input type="checkbox"/> Microsoft SQL Server 2000 Pivot Table Services	N/A	<input checked="" type="checkbox"/> Microsoft SQL Server 2008 R2	N/A
Product Name	Estimated Size													
<input type="checkbox"/> Microsoft Data Access 2.6 SDK Lite	10.12 MB													
<input checked="" type="checkbox"/> Microsoft Office XP Professional	113.3 MB													
<input checked="" type="checkbox"/> Microsoft SQL Server 2000 Analysis Services	N/A													
<input type="checkbox"/> Microsoft SQL Server 2000 Pivot Table Services	N/A													
<input checked="" type="checkbox"/> Microsoft SQL Server 2008 R2	N/A													

Claim	US 9,697,038 Claim Term	Analysis
		<p>Viewing Overall Migration Information</p> <p> Owned by Thomas Farley (Deactivated) *** Mar 29, 2022 • 1 min read</p> <p>If you are performing concurrent migrations from several sources, you can view overall migration information. This is a good way to get a quick snapshot view of migrations, without the details about the latest operations in the Destination Details window.</p>  <p>To View Overall Migration Information</p> <p>Click Migrate. The Migration Prepopulation window is displayed.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314671722/Viewing+Overall+Migration+Information)</p> <p>Additional evidence showing VirtaMove’s infringement is found in at least the following documents:</p>

Claim	US 9,697,038 Claim Term	Analysis
		 <p>(https://virtamove.com/resources/an-intelligent-approach-to-migrating-server-applications/)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>3. CONTAINERIZE AND ISOLATE APPLICATIONS</p> <p><i>The problem:</i> In regulated businesses, customers need to modernize certified applications that are running on legacy operating systems so that they can enable these apps on a supported OS. In many industries, like Insurance, Healthcare, Pharmaceuticals, and Banking, customers must verify compliance of business applications to rigorous, auditable standards (HIPAA and HITECH, for example, are compliance standards in regulated Healthcare-related businesses). Once an application is certified, making changes requires a time consuming and expensive re-certification process.</p> <p><i>The VirtaMove solution:</i> Avoid the pain of re-certification by using VirtaMove to containerize legacy applications and run them in isolation on modern OS and server environments.</p> <p>Containerization allows customers to run several close variations of applications, each dependent on unique but similar software stacks on the same server. The isolation provided by VirtaMove containers avoids conflicts between different stacks (for example, database and driver variations) and eliminates the need to manage multiple servers and license multiple OS platforms for each application. In addition, security and performance are improved by virtue of running on a modern server platform.</p> <p>(https://virtamove.com/blog/q-and-a/)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="688 289 1734 350"><i>Protect your applications by modernizing</i></p> <p data-bbox="688 378 1848 440">All the monitoring in the world doesn't eliminate the work involved in upgrading application stacks to new operating systems and software versions to improve security and reduce exposure to cyber warfare.</p> <p data-bbox="688 475 1205 500">Several options are available when it comes to upgrading:</p> <p data-bbox="688 527 951 548">1. REDEVELOP AN APP</p> <p data-bbox="699 565 1923 626">□ You can incur the cost of redeveloping an application on a new OS. However, custom remediation costs can be substantial (more than six figures) and take months of effort and disruption.</p> <p data-bbox="688 678 1108 699">2. CHOOSE AN ISV UPGRADE PATH</p> <p data-bbox="699 716 1875 777">□ If an ISV is involved, you might choose their upgrade path, along with the licensing and migration costs and delays for that single component of the software stack.</p> <p data-bbox="688 829 1207 850">3. UPGRADE A SOFTWARE STACK BY HAND</p> <p data-bbox="699 867 1913 1002">□ You might choose to upgrade a software stack by hand. This involves knowing what you still need, installing new versions of all the software components on the new server infrastructure, developing a data and application migration plan for each component, and developing a test plan to verify the migration. You will then need to remediate and rework any failed components. These steps can take weeks of planning, execution, and verification.</p> <p data-bbox="688 1053 1190 1075">4. USE AN AUTOMATED MIGRATION TOOL</p> <p data-bbox="699 1091 1913 1190">□ This option involves using an automated migration tool to isolate all the application stack dependencies from the underlying OS. You then move the application to the new server and OS infrastructure (upgrading database components on the fly if required). Intelligent automation then places the software stack in the right place on the new OS.</p> <p data-bbox="688 1247 1566 1271">Automated migration can take just a few hours and not uncommonly saves many weeks of labour.</p> <p data-bbox="657 1328 1299 1360">(https://virtamove.com/blog/cyber-warfare-again/)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p><i>The VirtaMove solution:</i> Avoid the pain of re-certification by using VirtaMove to containerize legacy applications and run them in isolation on modern OS and server environments.</p> <p>Containerization allows customers to run several close variations of applications, each dependent on unique but similar software stacks on the same server. The isolation provided by VirtaMove containers avoids conflicts between different stacks (for example, database and driver variations) and eliminates the need to manage multiple servers and license multiple OS platforms for each application. In addition, security and performance are improved by virtue of running on a modern server platform.</p> <p>(https://virtamove.com/blog/q-and-a/)</p> <p>Running Multiple Containers</p> <p>The  <code>virtarun</code> command uses shared memory, which allows VirtaMove to reduce the amount of memory needed when running multiple containers. For example, if you run 10 containers, this does not mean that 10 times the amount of memory is being used.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/313688121/Running+Containers)</p>
13	The system according to claim 1, wherein a first application of the one or more applications is installed twice into separate isolated environments, and the separate isolated environments run concurrently and independently.	<p>The Accused Products comprise a system as claimed in claim 1. <i>See</i> claim 1. The Accused Products comprise a system, “wherein a first application of one or more applications is installed twice into separate isolated environments, and the separate isolated environments run concurrently and independently.”</p> <p>For example, “backup copies of the containerized applications can be stored for recovery or distribution purposes.” Thus, once an application is containerized, that same application may be recovered and added into another separate container. The resulting containers can then run concurrently and independently.</p>

Claim	US 9,697,038 Claim Term	Analysis
		<div data-bbox="657 264 1955 1227"> <h2 data-bbox="842 282 1787 415">Using VirtaMove to Solve Datacenter Management Problems</h2> <p data-bbox="1188 444 1440 464">by VALERIE YATES May 01, 2018</p> <p data-bbox="697 537 1871 597">For years, customers have been taking advantage of VirtaMove containers to solve a range of business challenges in the datacenter management sphere.</p> <p data-bbox="697 626 1010 646">1. ISOLATE APPLICATIONS</p> <p data-bbox="697 667 1906 800">In industries like Insurance, Healthcare, Pharma, and Banking, customers must verify compliance to rigorous, auditable standards. Once an app is certified, making changes requires a time consuming and expensive recertification process. To avoid recertification, customers containerize legacy apps and run them in isolation on new OS and servers. Containerization allows customers to run several close variations of apps, each dependent on unique but similar software stacks on the same server.</p> <p data-bbox="697 829 1423 849">2. CREATE EXACT APPLICATION IMAGES FOR DEVELOPMENT</p> <p data-bbox="697 870 1906 964">If apps are containerized, it's easy to create exact images on new OSs such as Windows Server WS2012, WS2016, or WS2019. This eliminates the need to worry about recreating an installation process. Containerization accelerates the development and testing of new software by making it easy to create identical copies of the software on both datacenter and cloud servers.</p> <p data-bbox="697 993 1472 1013">3. STORE MASTER COPIES OF APPLICATIONS FOR DISTRIBUTION</p> <p data-bbox="697 1034 1898 1128">Once apps are containerized using VirtaMove, backup copies of the containerized apps can be stored for recovery, packaging, or distribution purposes. The master copy of an app stored in a container can be used to create a fresh, decluttered installation of an app, free of malware or other exposures.</p> <p data-bbox="697 1166 1299 1185">Read the Blog: VirtaMove – It's Not Just Application Modernization</p> </div> <p data-bbox="657 1263 1549 1295">(https://virtamove.com/blog/solve-datacenter-management-problems/)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p>3. CONTAINERIZE AND ISOLATE APPLICATIONS</p> <p><i>The problem:</i> In regulated businesses, customers need to modernize certified applications that are running on legacy operating systems so that they can enable these apps on a supported OS. In many industries, like Insurance, Healthcare, Pharmaceuticals, and Banking, customers must verify compliance of business applications to rigorous, auditable standards (HIPAA and HITECH, for example, are compliance standards in regulated Healthcare-related businesses). Once an application is certified, making changes requires a time consuming and expensive re-certification process.</p> <p><i>The VirtaMove solution:</i> Avoid the pain of re-certification by using VirtaMove to containerize legacy applications and run them in isolation on modern OS and server environments.</p> <p>Containerization allows customers to run several close variations of applications, each dependent on unique but similar software stacks on the same server. The isolation provided by VirtaMove containers avoids conflicts between different stacks (for example, database and driver variations) and eliminates the need to manage multiple servers and license multiple OS platforms for each application. In addition, security and performance are improved by virtue of running on a modern server platform.</p> <p>4. CREATE IDENTICAL APPLICATION IMAGES FOR TEST, DEVELOPMENT, OR BACKUP</p> <p><i>The problem:</i> Software development is a demanding business. Under pressure to meet deadlines, software developers might forget about the detailed installation scripts and configuration data required to create identical Cloud or Test copies of an application. Having identical Test and Development environments ensures that you've synchronized and are testing the current development version of software. Where identical development environments are not available, you're likely to see frequent problems with version and feature regression. Having a backup copy of both Development and Production instances is also critical for business continuity.</p> <p><i>The VirtaMove solution:</i> VirtaMove containerizes applications. Containerization accelerates the development and testing of new software by making it easy to create identical copies of the software on both datacenter and Cloud servers, on newer OSs such as Windows Server 2008 R2, WS2012, or WS2016. This eliminates the need to worry about recreating an installation process or scripts. It lets the developer focus on building software that solves business problems rather than worrying about the details of configuration.</p> <p>Using VirtaMove, applications containerized on WS2008 can run seamlessly on WS2012 or WS2016. Once applications are containerized, backup copies of the containerized applications can be stored for recovery or distribution purposes. The master copy of an application stored in a container can be used to create a fresh, uncluttered installation of an application, free of malware or other exposures.</p>


Claim	US 9,697,038 Claim Term	Analysis
		<p>(https://virtamove.com/blog/q-and-a/)</p> <div data-bbox="657 334 1955 1019" style="background-color: #1a2b4a; color: white; padding: 10px;"> <p>2. CREATE EXACT APPLICATION IMAGES FOR DEVELOPMENT</p> <p>Software development is a demanding business. Under pressure to meet deadlines, software developers may well forget about the detailed installation scripts and configuration data required to create identical cloud or test copies of an application. However, if applications are containerized, it's easy to create exact images on newer OSs such as Windows Server 2008 R2 or WS2012 or WS2016. This eliminates the need to worry about recreating an installation process or scripts. Additionally, applications that are containerized with VirtaMove on WS2008 can run seamlessly on WS2012 or WS2016.</p> <p>Containerization accelerates the development and testing of new software by making it easy to create identical copies of the software on both datacentre and cloud servers. It lets the developer focus on building software that solves business problems rather than worrying about the details of configuration.</p> <p>3. STORE MASTER COPIES OF APPLICATIONS FOR RECOVERY PURPOSES</p> <p>Once applications are containerized using VirtaMove, backup copies of the containerized applications can be stored for recovery or distribution purposes. The master copy of an application stored in a container can be used to create a fresh, decluttered installation of an application, free of malware or other exposures.</p> <p><i>Isolate, replicate, and recover or distribute.</i> These are just three of the many benefits and uses of VirtaMove containers, which customers rely on every day. To learn more about other use cases or how VirtaMove can help accelerate and modernize your Windows Server infrastructure, please call or e-mail us.</p> </div> <p>(https://virtamove.com/blog/not-just-app-modernization/)</p>


Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="688 289 1734 350"><i>Protect your applications by modernizing</i></p> <p data-bbox="688 378 1848 440">All the monitoring in the world doesn't eliminate the work involved in upgrading application stacks to new operating systems and software versions to improve security and reduce exposure to cyber warfare.</p> <p data-bbox="688 475 1205 500">Several options are available when it comes to upgrading:</p> <p data-bbox="688 527 951 548">1. REDEVELOP AN APP</p> <p data-bbox="699 565 1923 626">□ You can incur the cost of redeveloping an application on a new OS. However, custom remediation costs can be substantial (more than six figures) and take months of effort and disruption.</p> <p data-bbox="688 678 1108 699">2. CHOOSE AN ISV UPGRADE PATH</p> <p data-bbox="699 716 1875 777">□ If an ISV is involved, you might choose their upgrade path, along with the licensing and migration costs and delays for that single component of the software stack.</p> <p data-bbox="688 829 1207 850">3. UPGRADE A SOFTWARE STACK BY HAND</p> <p data-bbox="699 867 1913 1002">□ You might choose to upgrade a software stack by hand. This involves knowing what you still need, installing new versions of all the software components on the new server infrastructure, developing a data and application migration plan for each component, and developing a test plan to verify the migration. You will then need to remediate and rework any failed components. These steps can take weeks of planning, execution, and verification.</p> <p data-bbox="688 1053 1190 1075">4. USE AN AUTOMATED MIGRATION TOOL</p> <p data-bbox="699 1091 1913 1190">□ This option involves using an automated migration tool to isolate all the application stack dependencies from the underlying OS. You then move the application to the new server and OS infrastructure (upgrading database components on the fly if required). Intelligent automation then places the software stack in the right place on the new OS.</p> <p data-bbox="688 1247 1566 1271">Automated migration can take just a few hours and not uncommonly saves many weeks of labour.</p> <p data-bbox="657 1328 1299 1360">(https://virtamove.com/blog/cyber-warfare-again/)</p>

Claim	US 9,697,038 Claim Term	Analysis
		<p><i>The VirtaMove solution:</i> Avoid the pain of re-certification by using VirtaMove to containerize legacy applications and run them in isolation on modern OS and server environments.</p> <p>Containerization allows customers to run several close variations of applications, each dependent on unique but similar software stacks on the same server. The isolation provided by VirtaMove containers avoids conflicts between different stacks (for example, database and driver variations) and eliminates the need to manage multiple servers and license multiple OS platforms for each application. In addition, security and performance are improved by virtue of running on a modern server platform.</p> <p>(https://virtamove.com/blog/q-and-a/)</p> <p>Additional evidence showing VirtaMove's infringement is found in at least the following documents:</p> <p>To Delete and Recreate a Container</p> <ol style="list-style-type: none"> 1. Undock the container using the <code>virtaundock</code> command. 2. Do one of the following: <ol style="list-style-type: none"> a. Create a backup copy of the container template. Delete the container and then make the necessary changes to the template and use the <code>vir</code> <code>tacreate</code> <code>/T</code> command to recreate the container. b. Delete the container and start over. 3. Dock, start the container's services (if required), and run the container to confirm the changes have been made. <p>You can repeat any of these actions as often as required until a container satisfies your requirements.</p> <p>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314114051/Testing+Containers)</p>

Claim	US 9,697,038 Claim Term	Analysis												
		<div><div><div>virtacreate</div><div><div><div>TF</div><div>Owned by Thomas Farley (Deactivated) *** Last updated: Mar 28, 2022 • 1 min read</div></div></div></div><div><p>This command creates or updates a container. Administrator privileges are required.</p><p>You cannot create a container if shortnames are disabled (if <code>NtfsDisable8dot3NameCreation</code> is set to 1 in the registry key <code>HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\File System</code>).</p></div><div><div>Syntax</div><div><div>1</div><div>VIRTACREATE Appliance /E</div></div><div><div>1</div><div>VIRTACREATE Appliance /C <path_to_appliance_to_clone></div></div><div><div>1</div><div>VIRTACREATE Appliance /N <path_to_template></div></div><div><div>1</div><div>VIRTACREATE Appliance /T <path_to_template> [<server server username password>]</div></div></div><div><div>Options</div><table><tr><th>Option</th><th>Description</th></tr><tr><td>Appliance</td><td>Full path of the container to create or update. The path cannot contain spaces.</td></tr><tr><td>/E</td><td>Create a container with no file set (contains only VirtaMove proprietary files and properties).</td></tr><tr><td>/C</td><td>Clone a container.</td></tr><tr><td>/N</td><td>Create a container from a container template.</td></tr><tr><td>/T</td><td>Create a container from a container template using tether. Credentials can be provided. If VirtaMove Source Agent is installed on the source machine, you do not need to provide credentials for the source machine.</td></tr></table></div></div>	Option	Description	Appliance	Full path of the container to create or update. The path cannot contain spaces.	/E	Create a container with no file set (contains only VirtaMove proprietary files and properties).	/C	Clone a container.	/N	Create a container from a container template.	/T	Create a container from a container template using tether. Credentials can be provided. If VirtaMove Source Agent is installed on the source machine, you do not need to provide credentials for the source machine.
Option	Description													
Appliance	Full path of the container to create or update. The path cannot contain spaces.													
/E	Create a container with no file set (contains only VirtaMove proprietary files and properties).													
/C	Clone a container.													
/N	Create a container from a container template.													
/T	Create a container from a container template using tether. Credentials can be provided. If VirtaMove Source Agent is installed on the source machine, you do not need to provide credentials for the source machine.													

Claim	US 9,697,038 Claim Term	Analysis
		(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/314212506/virtacreate)
14pre	A method, comprising:	To the extent that the preamble is limiting, the Accused Products comprise “[a] method” for updating isolated environments (containers) as applications request new resources. <i>See</i> limitation 1pre.
14a	creating one or more isolated environments during installation of one or more applications;	<p><i>See</i> limitation 1d.</p> <p>For example, “[i]n the new environment, run apps in the container for portability or isolation,” implying that the isolation is created during installation of the applications.</p>

Claim	US 9,697,038 Claim Term	Analysis
		 <p>The screenshot shows the VirtaMove website with the navigation bar containing 'Solutions', 'Resources', 'Blog', 'Partners', and 'Company', along with a 'GET STARTED' button. The main heading is 'An Intelligent Approach to Migrating Server Applications' under the subheading 'DATASHEETS'. The text describes the VirtaMove Migration Intelligence Suite as a tool for IT infrastructure modernization, highlighting its ability to accelerate and simplify cloud-first business strategies. A 'DOWNLOAD DATASHEET' button is visible at the bottom of the section.</p> <p>(https://virtamove.com/resources/an-intelligent-approach-to-migrating-server-applications/)</p> <p>Indeed, installation of applications requires “[c]reat[ing] a virtual container” and “[p]re-populat[ing] the virtual container with applications,” where such containers are isolated environments, as already indicated.</p>

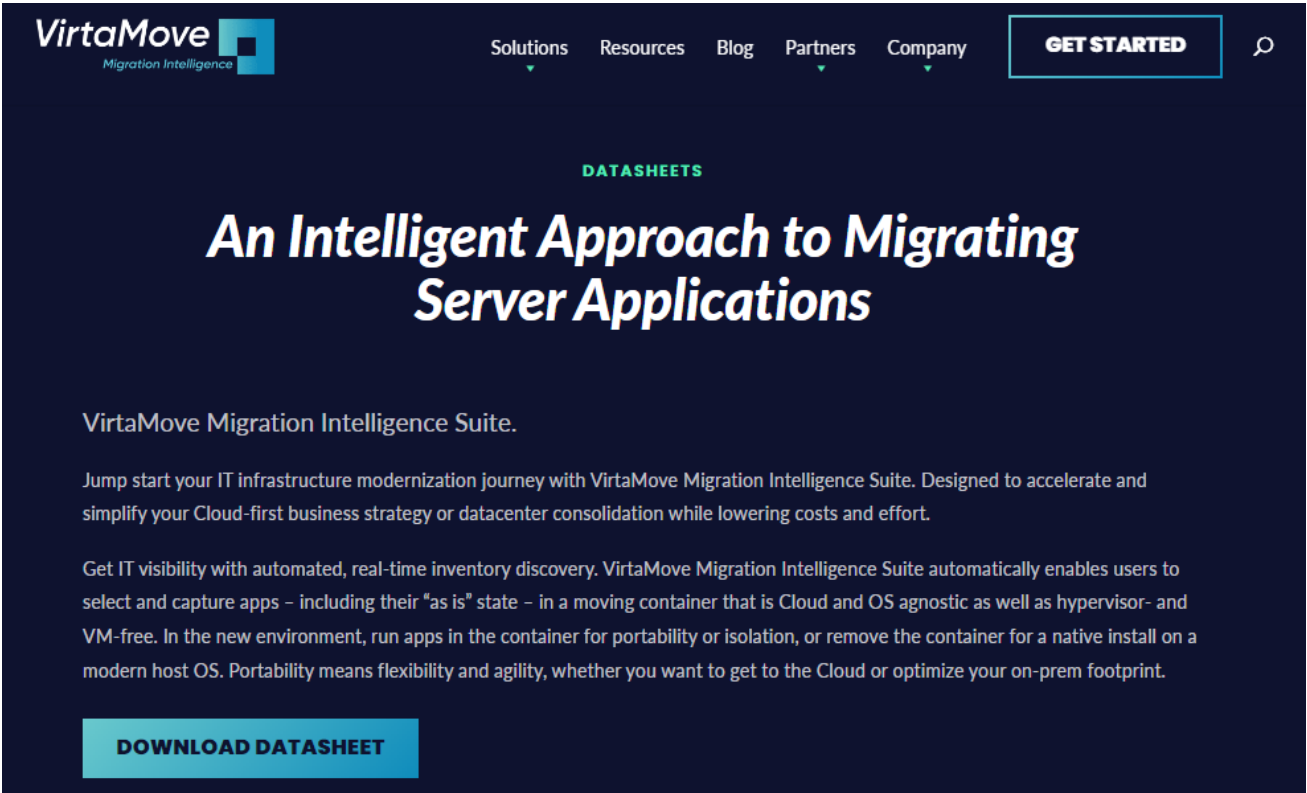
Claim	US 9,697,038 Claim Term	Analysis
		<h2 data-bbox="695 293 1457 347">The Application Migration Process</h2> <p data-bbox="695 402 1197 461">  Owned by Thomas Farley (Deactivated) ... Last updated: Mar 25, 2022 • 2 min read </p> <p data-bbox="695 516 1381 548">Migrating an application involves the following steps:</p> <ol data-bbox="695 581 1829 1360" style="list-style-type: none"> 1. Meet requirements for your environment as well as source and destination machines. See https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310706978 Can't find link. 2. Double-click the Administrative Console shortcut icon on your desktop to start Administrative Console. 3. <u>Create a virtual container and connect it to the source machine.</u> 4. <u>Pre-populate the virtual container with applications, services, accounts, components, and files selected from the source machine.</u> 5. Run your virtualized application on the destination machine and exercise the application. See Running and Exercising Your Application. 6. Run VirtaMove Dissolve if you want to <u>remove the migration container from the application and transfer the application to the underlying operating system on the destination machine so that the application will behave as if natively installed.</u> Note that this process cannot be reversed. See Dissolving a Virtual Container. You may wish to keep the application running in the migration container, as required.

Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="657 272 2043 305"><u>(https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310739347/The+Application+Migration+Process)</u></p> <p data-bbox="657 337 1948 370">Additional evidence showing VirtaMove's infringement is found in at least the following documents:</p>


Claim	US 9,697,038 Claim Term	Analysis
		<div data-bbox="863 289 1755 415"> <h2>VirtaMove: It's Not Just Application Modernization</h2> </div> <div data-bbox="1171 446 1440 467"> <p>by NIGEL STOKES August 09, 2017</p> </div> <div data-bbox="709 537 1881 670"> <p>For some time now we've been blogging about the advantages of automated Application Modernization using our unique container-based technology for Microsoft Server environments. However, customers have discovered many advantages of VirtaMove containers that extend beyond application modernization. For years, customers have been taking advantage of VirtaMove containers to solve a range of business challenges.</p> </div> <div data-bbox="705 693 1018 716"> <h3>1. ISOLATE APPLICATIONS</h3> </div> <div data-bbox="705 732 1908 971"> <p>In many industries, like Insurance, Healthcare or Pharmaceuticals and even in Banking, customers must verify compliance of business applications to rigorous, auditable standards (for example HIPAA is a compliance standard in regulated Healthcare-related businesses). Once an application is certified, making changes requires a time consuming and expensive recertification process. To avoid recertification, customers containerize legacy applications and run them in isolation on newer OS and server environments. Containerization allows customers to run several close variations of applications, each dependent on unique but similar software stacks on the same server. The isolation provided by containerization avoids conflicts between different stacks (for example, database and driver variations) and eliminates the need to manage multiple servers and license multiple OS platforms for each application.</p> </div> <div data-bbox="705 995 1419 1019"> <h3>2. CREATE EXACT APPLICATION IMAGES FOR DEVELOPMENT</h3> </div> <div data-bbox="705 1034 1906 1200"> <p>Software development is a demanding business. Under pressure to meet deadlines, software developers may well forget about the detailed installation scripts and configuration data required to create identical cloud or test copies of an application. However, if applications are containerized, it's easy to create exact images on newer OSs such as Windows Server 2008 R2 or WS2012 or WS2016. This eliminates the need to worry about recreating an installation process or scripts. Additionally, applications that are containerized with VirtaMove on WS2008 can run seamlessly on WS2012 or WS2016.</p> </div> <div data-bbox="705 1234 1908 1330"> <p>Containerization accelerates the development and testing of new software by making it easy to create identical copies of the software on both datacentre and cloud servers. It lets the developer focus on building software that solves business problems rather than worrying about the details of configuration.</p> </div>

Claim	US 9,697,038 Claim Term	Analysis
		<p>(https://virtamove.com/blog/not-just-app-modernization/)</p> <p>There are advantages to a stateful re-install on new servers with a modern operating system. Benefits include:</p> <ul style="list-style-type: none"> ❑ A re-install closes known security exposures on old W2K, WS2003, and WS2008 servers. ❑ Your apps will run on a secure, supported OS. ❑ New servers run faster and improve app performance. ❑ You can reconfigure where apps run. Apps can be split and installed on separate servers or consolidated on a single server. ❑ Once it's moved, you can easily do an in-place upgrade of the app to a new version without breaking configuration data. ❑ Legacy apps can be remediated using the tools and techniques available on a modern platform. <p>Squeeze more life out of your apps</p> <p>Moving apps that you rely on to new servers extends their useful life and eliminates the effort to redevelop or learn new systems. An automated, stateful re-install doesn't impact your existing applications and ensures good performance on new servers. It saves time and money. In one month, automation provides a ten times improvement in the number of applications that can be re-installed and cut-over into production on new servers. If you have the source code, you can plan future functional or security improvements using a conventional change management process.</p> <p>An automated, stateful re-install is the best first step. It starts your app migration journey safely and provides tangible improvements and benefits. Your apps will be in a better place, and your business along with them. VirtaMove can help you along your upgrade path. If you'd like to understand more about how we give business-critical production applications a second life by moving them to a better place, don't hesitate to give us a call. We're pleased to share what we know.</p> <p>(https://virtamove.com/blog/app-migration-journey/)</p>
14b	updating the one or more isolated environments as the one or more applications	See limitation 1e.

Claim	US 9,697,038 Claim Term	Analysis
	use additional resources; and	
14c	removing the one or more isolated environments as part of uninstalling the one or more applications.	<i>See</i> limitation 1f.
15	The method of claim 14 comprising intercepting access to system resources and interfaces at one or more interception layers.	The Accused Products comprise a method as claimed in claim 14. <i>See</i> claim 14. The Accused Products meet the remaining limitations in this claim. <i>See</i> claim 3.
16	The method of claim 15 comprising maintaining mapping between the system resources inside the one or more isolated environments and outside.	The Accused Products comprise a method as claimed in claim 15. <i>See</i> claim 15. The Accused Products meet the remaining limitations in this claim. <i>See</i> claim 5.
17	The method of claim 14 comprising isolating the one or more applications from other applications and a host operating system while running within the one or more isolated environments.	The Accused Products comprise a method as claimed in claim 14. <i>See</i> claim 14. The Accused Products meet the remaining limitations in this claim. <i>See</i> claim 2.

Claim	US 9,697,038 Claim Term	Analysis
18pre	A non-transitory computer readable storage medium comprising instructions for:	The Accused Products comprise a “non-transitory computer readable medium” for updating isolated environments (containers) as applications request new resources. <i>See</i> limitation 1pre.
18a	creating one or more isolated environments during installation of one or more applications;	<p><i>See</i> limitation 1d.</p> <p>For example, “[i]n the new environment, run apps in the container for portability or isolation,” implying that the isolation is created during installation of the applications.</p> 

Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="657 272 1829 305"><u>(https://virtamove.com/resources/an-intelligent-approach-to-migrating-server-applications/)</u></p> <p data-bbox="657 337 2022 410">Indeed, installation of applications requires “[c]reat[ing] a virtual container” and “[p]re-populat[ing] the virtual container with applications,” where such containers are isolated environments, as already indicated.</p>

Claim	US 9,697,038 Claim Term	Analysis
		<h2 data-bbox="695 293 1459 350">The Application Migration Process</h2> <p data-bbox="695 402 1197 464">  Owned by Thomas Farley (Deactivated) ... Last updated: Mar 25, 2022 • 2 min read </p> <p data-bbox="695 516 1381 548">Migrating an application involves the following steps:</p> <ol data-bbox="695 581 1829 1360" style="list-style-type: none"> 1. Meet requirements for your environment as well as source and destination machines. See ✖ https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310706978 Can't find link. 2. Double-click the Administrative Console shortcut icon on your desktop to start Administrative Console. 3. <u>Create a virtual container and connect it to the source machine.</u> 4. <u>Pre-populate the virtual container with applications, services, accounts, components, and files selected from the source machine.</u> 5. Run your virtualized application on the destination machine and exercise the application. See 📖 Running and Exercising Your Application. 6. Run VirtaMove Dissolve if you want to <u>remove the migration container from the application and transfer the application to the underlying operating system on the destination machine so that the application will behave as if natively installed.</u> Note that this process cannot be reversed. See 📖 Dissolving a Virtual Container. You may wish to keep the application running in the migration container, as required.

Claim	US 9,697,038 Claim Term	Analysis
		<p data-bbox="657 272 2043 305">https://virtamove.atlassian.net/wiki/spaces/VDOC/pages/310739347/The+Application+Migration+Process</p> <p data-bbox="657 337 1948 370">Additional evidence showing VirtaMove's infringement is found in at least the following documents:</p>

Claim	US 9,697,038 Claim Term	Analysis
		<div data-bbox="863 289 1755 415"> <h2>VirtaMove: It's Not Just Application Modernization</h2> </div> <div data-bbox="1171 446 1440 467"> <p>by NIGEL STOKES August 09, 2017</p> </div> <div data-bbox="709 537 1881 670"> <p>For some time now we've been blogging about the advantages of automated Application Modernization using our unique container-based technology for Microsoft Server environments. However, customers have discovered many advantages of VirtaMove containers that extend beyond application modernization. For years, customers have been taking advantage of VirtaMove containers to solve a range of business challenges.</p> </div> <div data-bbox="705 693 1018 716"> <h3>1. ISOLATE APPLICATIONS</h3> </div> <div data-bbox="705 732 1908 971"> <p>In many industries, like Insurance, Healthcare or Pharmaceuticals and even in Banking, customers must verify compliance of business applications to rigorous, auditable standards (for example HIPAA is a compliance standard in regulated Healthcare-related businesses). Once an application is certified, making changes requires a time consuming and expensive recertification process. To avoid recertification, customers containerize legacy applications and run them in isolation on newer OS and server environments. Containerization allows customers to run several close variations of applications, each dependent on unique but similar software stacks on the same server. The isolation provided by containerization avoids conflicts between different stacks (for example, database and driver variations) and eliminates the need to manage multiple servers and license multiple OS platforms for each application.</p> </div> <div data-bbox="705 995 1419 1019"> <h3>2. CREATE EXACT APPLICATION IMAGES FOR DEVELOPMENT</h3> </div> <div data-bbox="705 1034 1904 1200"> <p>Software development is a demanding business. Under pressure to meet deadlines, software developers may well forget about the detailed installation scripts and configuration data required to create identical cloud or test copies of an application. However, if applications are containerized, it's easy to create exact images on newer OSs such as Windows Server 2008 R2 or WS2012 or WS2016. This eliminates the need to worry about recreating an installation process or scripts. Additionally, applications that are containerized with VirtaMove on WS2008 can run seamlessly on WS2012 or WS2016.</p> </div> <div data-bbox="705 1234 1908 1330"> <p>Containerization accelerates the development and testing of new software by making it easy to create identical copies of the software on both datacentre and cloud servers. It lets the developer focus on building software that solves business problems rather than worrying about the details of configuration.</p> </div>

Claim	US 9,697,038 Claim Term	Analysis
		<p>(https://virtamove.com/blog/not-just-app-modernization/)</p> <p>There are advantages to a stateful re-install on new servers with a modern operating system. Benefits include:</p> <ul style="list-style-type: none"> ❑ A re-install closes known security exposures on old W2K, WS2003, and WS2008 servers. ❑ Your apps will run on a secure, supported OS. ❑ New servers run faster and improve app performance. ❑ You can reconfigure where apps run. Apps can be split and installed on separate servers or consolidated on a single server. ❑ Once it's moved, you can easily do an in-place upgrade of the app to a new version without breaking configuration data. ❑ Legacy apps can be remediated using the tools and techniques available on a modern platform. <p>Squeeze more life out of your apps</p> <p>Moving apps that you rely on to new servers extends their useful life and eliminates the effort to redevelop or learn new systems. An automated, stateful re-install doesn't impact your existing applications and ensures good performance on new servers. It saves time and money. In one month, automation provides a ten times improvement in the number of applications that can be re-installed and cut-over into production on new servers. If you have the source code, you can plan future functional or security improvements using a conventional change management process.</p> <p>An automated, stateful re-install is the best first step. It starts your app migration journey safely and provides tangible improvements and benefits. Your apps will be in a better place, and your business along with them. VirtaMove can help you along your upgrade path. If you'd like to understand more about how we give business-critical production applications a second life by moving them to a better place, don't hesitate to give us a call. We're pleased to share what we know.</p> <p>(https://virtamove.com/blog/app-migration-journey/)</p>
18b	updating the one or more isolated environments as the one or more applications	See limitation 1e.

Claim	US 9,697,038 Claim Term	Analysis
	use additional resources; and	
18c	removing the one or more isolated environments as part of uninstalling the one or more applications.	<i>See</i> limitation 1f.
19	The non-transitory computer readable storage medium of claim 18 comprising instructions for maintaining mapping between the system resources inside the one or more isolated environments and outside.	The Accused Products comprise a non-transitory computer readable medium as claimed in claim 18. <i>See</i> claim 18. The Accused Products meet the remaining limitations in this claim. <i>See</i> claim 5.
20	The non-transitory computer readable storage medium of claim 19 comprising instructions for isolating the one or more applications from other applications and a host operating system while running within the one or more isolated environments.	The Accused Products comprise a non-transitory computer readable medium as claimed in claim 19. <i>See</i> claim 19. The Accused Products meet the remaining limitations in this claim. <i>See</i> claim 2.